



ZX20 SERIES IPPBX USER MANUAL

V1.2

.....
The information contained in this document is subject to change at any time without prior notification. If you want to
learn more info about our product, please visit our web www.zycoo.com.
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Chapter1 Safety Notice

Please read the following safety notices before installing or using this IP PBX. They are crucial for a safe and reliable operation of the device.

- Please use the external power supply which is included in the package. Other power supplies may cause damage to the device, affect the performance or induce noise.
- Before using the external power supply in the package, please check with residential power voltage. Inaccurate power voltage may cause fire and damage.
- Please do not damage the power cord. If power cord or plug is impaired, do not use it, otherwise, it may cause fire or electric shock.
- The plug-socket combination must be accessible at all times because it serves as the main disconnecting device.
- Do not drop, knock or shake it. Rough handling can break internal circuit boards.
- Do not install the device in places where there is direct sunlight. Also do not place the device on carpets or cushions. It may cause fire or breakdown.
- Avoid exposing the device to high temperature, below -10°C or high humidity. Avoid wetting the unit with any liquid.
- Do not attempt to open it. Non-expert handling to the device could damage it. Consult your authorized dealer for help, or else it may cause fire, electric shock or breakdown.
- Do not use harsh chemicals, cleaning solvents, or strong detergents to clean it. Wipe it with soft cloth that has been slightly dampened in a mild soap and water solution.
- When lightning, do not touch power plug or phone line, it may cause an electric shock.
- Do not install this device in an ill-ventilated place.
- You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazard involved with electrical circuitry and be familiar with standard practices for preventing accidents.

Chapter2 Brief Introduction

2.1 Brief introduction of ZX20

ZX20 Series IP PBX can not only provide the traditional basic PBX features(call hold, call forwarding, call waiting and so on), but also provide enhanced features such as visual operator, voice mail to mail, multi-media music on hold, and auto attendant, etc. In addition, it's very convenient for SMEs' management and maintenance, also easy to upgrade. SMEs can set up own phone system to improve the company image and office efficiency.

ZX20 series IP PBX includes: ZX20-A211, ZX50-A202, most of their features are same, main difference is the interface, please check the following table for details:

| | Model | FXS | FXO |
|---------|-------|-----|-----|
| ZX20-A2 | A211 | 1 | 1 |
| | A202 | 0 | 2 |

Main Features

- 30 SIP/IAX2 registers
- Video Calls
- IP Phone Provisioning
- Multiple Language
- DID(Direct Inward Dialing Number)
- Support SKYPE for SIP
- Support USB disk recording(Scalable)
- Call Recording
- Codec: G.711-Ulaw,G.711-Alaw,G.726,G.729
GSM,SPEEX,H.261,H.263,H.263+,H.264
- Caller ID/ Call Hold/ Forward/ Transfer/ Waiting/ Parking
- Call Paging and Intercom
- Call Queue
- Blacklist/ Phone Book
- Music On Hold
- DISA(Direct Inward System Access)
- Flexible Dial Plan
- Ring Group/ Conference Room
- Call Logs
- BLF(Busy Lamp Field)
- Configuration By web
- Built-in SIP/IAX2 server
- Build-in voice mail server
- System Backup and Restore

- Echo Cancellation/VAD
- Support Static/DHCP
- VPN Client(Support N2N/L2TP)
- DDNS Client(Support Dyn dns.org /No-ip.com)
- Support NTP(Network Time Protocol)
- Support PoE

2.2 Hardware Structure

Here, we take ZX20-A202 as the sample to show the interface and the indicators.

2.2.1 Back Panel

- 2 Analog Port(RJ11)
- 1 Network Interface (RJ45)
- 1 Power Interface (DC 12V 2A)
- 1 Reboot Button

2.2.2 Front Panel



| Mark | Function | Status | Description |
|------|---------------|--------|----------------|
| PWR | Power Status | On | Power On |
| | | Off | Power Off |
| SYS | System Status | On | System working |

| | | | |
|-------------|-----------------------|-------|--------------------|
| | | Off | System Failed |
| WAN | WAN interface Status | Wink | Data exchanging |
| | | Off | No Data exchanging |
| | | Off | No Data exchanging |
| Port1-Port2 | Analog Modules Status | Green | FXS channels |
| | | Red | FXO channels |
| | | Off | Failed |

2.2.3 Hardware:

- 32bit embedded RISC DSP
- 256M Onboard Nand Flash
- 64M Onboard SDRAM

2.2.4 Environmental Requirements:

- temperature: -10 °C -45 °C
- Storage temperature: -30 °C -65 °C
- humidity: 10-80% no dew
- Power: AC 100~240V

2.2.5 Packing List

- | | |
|----------------------------|---------|
| ● ZX20 IP PBX | 1 Unit |
| ● Power Adapter | 1 Unit |
| ● Quick Start Guide | 1 Piece |
| ● Product Maintenance Card | 1 Piece |
| ● Network Cable | 1 Unit |

Chapter3 Basic Configuration

3.1 Preparation Before Operation

What kind of IP Phone can be used with ZX20 IP PBX?

FXS Interface

- Analog Phone
- SIP Extension
- ZP Series IP Phones provided by ZYCOO(ZP302/ ZP502/ ZP502P)
- IP Phone which support SIP/ IAX2 protocol (eg: CISCO, Grandstream, etc.)

3.2 Before Making a Call

3.2.1 Login IP PBX

Getting IP Address

ZX20 Series IP PBX support 3 Ways to get the IP Address: Static/ DHCP

Default IP And Port of WAN:

- WAN Port IP: <http://192.168.1.100:9999>

Default configuration and function key

- Web GUI username: **admin**
- Web GUI password: **admin**
- **11 Play the IP Address of WAN port
- **12 Play the IP Address of LAN port
- 600 Enter into the Voicemail Box
- 900 Enter into the Meeting
- # Blind Transfer
- *2 Attended Transfer
- * Disconnect Call

Login to the system

After connecting the IP PBX to the local area network, launch the web browser on a computer which is in this local area network. Enter the IP address of the system (WAN port IP address **http://192.168.1.100:9999**. The start web page will appear like this:



Username:

Password:

Language: English

Please login...




Enter Username and password (default username is **admin**, password is **admin**), then click “login”. Once the login is successful, the home page will be displayed:



Note:

- 1) Please use IE(7.0 or more higher version) and Firefox browsers.
- 2) You have to add a network segment same with the WAN port if your PC is not at 192.168.1.XXX.
- 3) For safety requirement, please modify the username and password after you login. You can modify in this page: “System”---“Management”
- 4) Generally, based on the default setting, if user didn't do anything in 1 min after login, system will reflect it's over time. If you want to continue operating, please login again.

If username and password are right, this following page will be displayed:



[Activate Changes](#)
[Logout](#)

[Home](#)
[Basic](#)
[Inbound Control](#)
[Advanced](#)
[Status](#)
[System](#)

Home
Move the mouse over to a field to see tooltips

System Info

| | | | | | |
|-----------------|--|-------|--|---------------|-------------------|
| Network | | WAN | | 192.168.1.72 | 00:60:6E:50:0A:9E |
| Storage | | Flash | | Total: 248.0M | Used: 80.6M |
| Channels | | 1 | | FX0 | 2 |
| | | | | FXS | |

Device Info

| | | | |
|------------|---------|-----------------|------|
| Model No.: | ZX20-A2 | System Version: | v1.2 |
|------------|---------|-----------------|------|

Run Time:10 min

- Network WAN Port IP and MAC will be displayed
- Storage Total storage and used storage will be displayed
- Channels Channel information will be based on the product model
- Device Info Product Model and System Version will be displayed

Common Button

Besides of the device info in the home page, the following common buttons are displayed as well:

- Log out Log out GUI
- Reboot Reboot the IP PBX system
- Factory Defaults Restore all settings to factory default
- Activate Changes Activate the changes for your current configuration

System Menu

System Menu include the following sub menu:

- Home Page Display device info
- Basic Basic configuration on extension, trunks, etc
- Inbound Control Configure Inbound Route, IVR and Black List, etc
- Advanced Configure extension's default info, conference, etc.
- Status Check recording list, call logs, register status, etc.
- System Configure network, time, etc; manage call logs, back up files, etc

3.2.2 Basic Configuration

Configure Extensions

ZX20 IP PBX support SIP/IAX2 and analog extension, support "Batch Add Users".

configure extension from this page: 【Basic】 ---- 【Extensions】

The screenshot displays the ZYCOO web interface for configuring extensions. On the left is a sidebar menu with items: Home, Basic, Extensions, Trunks, Outbound Routes, Inbound Control, Advanced, Status, and System. The 'Basic' menu is selected, and the 'Extensions' sub-menu is active. The main area shows the 'Extension Configuration' page with tabs for 'Extensions', 'Upload/Download Extensions', and 'Extensions Log'. Below these tabs is a search bar with 'Extension Number:' and buttons for 'Search' and 'Show All'. There are three action buttons: 'Create New User' (blue), 'Batch Add Users' (blue), and 'Delete Selected Users' (red). A table titled 'Extensions' lists 10 entries with columns: S.No, Name, Extension, Port, Protocol, Dial Plan, Outbound CID, and Options. Each row has an 'Edit' link in the Options column. A tooltip on the right says 'Move the mouse over to a field to see tooltips'.

| S.No | Name | Extension | Port | Protocol | Dial Plan | Outbound CID | Options |
|------|------|-----------|------|----------|-----------|--------------|---------|
| 1 | 801 | 801 | | SIP | DialPlan1 | | Edit |
| 2 | 802 | 802 | | SIP | DialPlan1 | | Edit |
| 3 | 803 | 803 | | SIP | DialPlan1 | | Edit |
| 4 | 804 | 804 | | SIP | DialPlan1 | | Edit |
| 5 | 805 | 805 | | SIP | DialPlan1 | | Edit |
| 6 | 806 | 806 | | SIP | DialPlan1 | | Edit |
| 7 | 807 | 807 | | SIP | DialPlan1 | | Edit |
| 8 | 808 | 808 | | SIP | DialPlan1 | | Edit |
| 9 | 809 | 809 | | SIP | DialPlan1 | | Edit |
| 10 | 810 | 810 | | SIP | DialPlan1 | | Edit |

Extension Settings

| Item | Explanation |
|-----------|---|
| Search | Search extension precisely or fuzzily |
| Show all | Show all extensions |
| Extension | Be connected to the phone eg: "888" |
| Name | Extension name (English letter is supported only) eg: "Tom" |
| Password | Support default or random password, combined by letter and |

| | |
|------------------|--|
| | figure, eg: "12u3b6" |
| Caller ID | Caller's ID eg: "801" |
| Outbound CID | Overrides the caller id when dialing out with a trunk. |
| VM Password | Voicemail Password for this user, eg: "1234". |
| E-mail | The e-mail address for this user, eg. "Tom@gmail.com" |
| Analog Phone | If this user is attached to an analog port on the system, please choose the port number here. |
| Dial Plan | Please choose the Dial Plan for this user, Dial Plan is defined under the "Outbound Routes". |
| Voicemail | This user will have a voicemail account after choosing this option. |
| Can reinvite | Set up calls directly between caller and receiver, after being connected by IP PBX system. This method is known to cause problems with certain hardware, such as the common Cisco ATA 186. |
| SIP | Check this option if the User or Phone is using SIP or is a SIP device. |
| IAX2 | Check this option if the User or Phone is using IAX2 or is an IAX2 device. |
| T.38 Fax | Enables T.38 fax (UDPTL) pass through on SIP to SIP calls |
| Agent | Check this option if this User or Phone is an Call Agent. |
| NAT | Check this option if the User or Phone is located behind a NAT (Network Address Translation) enabled gateway. |
| Pickup Group | Select your pickup group. |
| Delete VMail | Voicemail will not be checkable by phone if you choose this option. Messages will be sent by email only. Note: You must configure SMTP server for this functionality. |
| DTMF Mode | The Dual-Tone Multi-Frequency mode to be used is specified here and can be changed if necessary. The default is rfc2833. |
| Video Call | Enable/Disable Video call for this extension |
| Permit IP | IP address and network restriction. eg: "192.168.1.77" or "192.168.10.0/255.255.255.0" |
| Auto Provision | Zycoo IP PBX can work with Grandstream and Yealink IP Phone on this function. Please select the phone manufacture and input MAC address of the IP Phone. For more details, please check in Part 3.10 |
| Codecs Configure | The allowed and disallowed codecs can be selected by clicking this link. Default codecs are alaw, ulaw and G.729. |



Note:

- 1) There are 30 default extensions which number started with "8", you can add or delete extension by your requirement.

Upload/Download Extensions

If you wanna batch add users, please click【Upload/Download Extensions】to configure on this page:

Please download the demo from 【Download Extensions demo】 , add extension files and save based on the demo, choose the extension file which you wanna upload.

You can download the extension file by click 【Download Extensions(.csv)】

Extensions Log

Click 【Extensions Log】 to check the extensions log, you can refresh or clear the log:

3.2.3 Time Based Rules

You can set working time rule and after-working time rule, and deal with your inbound call based on this time rule. Please set from this page: 【Time Based Rule】 --- 【New Time Rule】 :

X

Rule Name:

Time & Date Conditions

Start Time: : End Time: :
 Start Day: End Day:
 Start Date: End Date:
 Start Month: End Month:

Destination

match:
 unmatch:

New Time Rule:

| Item | Explanation |
|------------------------|---|
| Rule Name | Define the time rule name. |
| Time & Date Conditions | Set time segment of Month/Date/Week. |
| Destination | How to deal with the inbound call in different time segment eg: Inbound call will be forward to IVR in working time. |

3.3 Outbound Call

3.3.1 Trunks

If you want to set up outbound call to connect to PSTN(Public Switch Telephone Network) or VoIP provider, please configure on this page: **【Basic】 -> 【Trunks】**

[Activate Changes](#)
[Logout](#)

[Home](#)
[Basic](#)
[Extensions](#)
[Trunks](#)
[Outbound Routes](#)
[Inbound Control](#)
[Advanced](#)
[Status](#)
[System](#)

List of Trunk

| S.No | Trunk | Type | Options |
|------|-------------|--------------|--|
| 1 | test | Analog Trunk | <input type="button" value="Options"/> |
| 2 | VoIP - test | VoIP Trunk | <input type="button" value="Options"/> |

Analog/Voip Trunks/Peer:
 Analog lines are attached to analog interfaces of the PBX using FXO cards. Voice over IP (VoIP) connections are provided by an Internet Telephony Service Provider (ITSP).

ZX20 IP PBX support 3 kinds of trunks: Analog line, Custom VoIP, Peer.

How to add each trunk:**1) Analog**

Click **【Add a Trunk】** -> **【Analog】**

Add a Trunk
X

Provider Type:

- ☒ Analog Trunk
- ☐ VoIP Trunk
- ☐ Peer

Description:

Lines: ☐ Analog Port #1(1)

Prefix:

| Item | Explanation |
|-------------|--|
| Description | Define description for the trunk. |
| Lines | Individual lines of the PBX eg: Analog Port #3: The third analog port of the PBX. |
| Prefix | The prefix will be added as default, when this trunk is used. |

You can configure the Analog line through ZYCOO IP PBX. Same Analog line couldn't be used in multiple trunks. If you don't have available Analog/GSM trunk, you can't set up trunk.

2) Custom VoIP

Custom VoIP allows you to create a VoIP trunk, please configure on this page:

【Add a Trunk】 -> **【VoIP Trunk】**

Add a Trunk X

Provider Type:

☐ Analog Trunk

☒ VoIP Trunk

☐ Peer

Description:

Protocol: SIP ▼

Register: ☐

Host:

Outboundproxy:

Proxy Port:

Prefix:

☐ Without Authentication

Username:

Password:

Save
Cancel

| Item | Explanation |
|------------------------|---|
| Description | Description for VoIP Trunk, digit or letter is allowed. |
| Protocol | Choose protocol for this trunk, SIP or IAX2 |
| Dial Plan | Choose a dial plan for this trunk, define it in the submenu named 【Outbound Routes】 . |
| Register | Check for opening register service; otherwise register service is closed |
| Host | Host Address provided by VoIP Provider. |
| Outbound proxy | Outbound proxy is provided by VoIP Provider. |
| Proxy Port | Proxy Port is provided by VoIP Provider. |
| Prefix | The prefix will be added as default, when this trunk is used. |
| Without Authentication | If you don't use Authentication when connecting server, pls check this option. |
| Username | Username provided by VoIP Provider. |
| Password | Password provided by VoIP Provider. |

3) Peer

ZYCOO IP PBX will be taken as a Client when you use "Peer", it's used for outbound call by connecting to another ZX20 IP PBX.

Add a Trunk X

Provider Type:

☐ Analog Trunk

☐ VoIP Trunk

☒ Peer

Peer Name:

Protocol: SIP ▼

Dial Plan: default ▼

Host:

NAT: ☐

Prefix:

☐ Without Authentication

Username:

Password:

Save
Cancel


| Item | Explanation |
|------------------------|---|
| Peer Name | Define the Peer Name, digit or letter is allowed. |
| Protocol | Choose protocol for this trunk, SIP or IAX2 |
| Dial Plan | Choose a dial plan for this trunk, define it in the submenu named 【Outbound Routes】 . |
| Host | IP Address of the other ZX20 IP PBX |
| NAT | Check this option, extension user will be configured after NAT (Network Address Translation). |
| Without Authentication | If you don't use Authentication when connecting server, please check this option. |
| Username | Username provided by the other ZX20 IP PBX. |
| Password | Password provided by the other ZX20 IP PBX. |

Once a trunk is added, this trunk will be displayed in the "List of Trunk". You can define the codecs, configure advanced settings or delete this trunk from the drop downs of "Option"

3.3.4 Outbound Routes

Outbound Routes is to define what trunk is used for outbound call by extension user. If you don't allow extension user call out, please ignore this part.

Please configure on this page: 【Basic】 -> 【Outbound Routes】



- Home Zyc00
- Basic**
- Extensions
- Trunks
- Outbound Routes
- Inbound Control**
- Advanced**
- Status**
- System**

Outbound Routes

List of DialPlans:

DialPlan1 ▼
New
Delete

List of DialRules: Add a Dial Rule

| S.No | Rule Name | Dial Pattern | Call Using | Options |
|------|-----------|--|------------|-------------|
| 1 | Call_PSTN | Begins with 9 and followed by more than 3 digits | Ports 1,2 | Edit Delete |

On this page, you can configure basic match pattern of outbound routes and create different dial plan. Please configure by clicking **【Add a Dial Rule】**

X

Rule Name:

PIN Set: ☒ ▼ Record in CDR: ☐

Place this call through: ▼

Failover: ☐

Dialing Rules: If the number begins with and followed by (☐ more than) digits
(Define a custom pattern)

Delete digits prefix from the front and auto-add digit before dialing

Save
Cancel

| Item | Explanation |
|-------------------------|---|
| Rule Name | Set a name for this dial rule |
| PIN Set | Set PIN which you need input when you dial out by this rule. |
| Record in CDR | If you selected it, CDR will show which pin the call is outbound through |
| Place this call through | Choose a trunk for this rule |
| Failover | Choose a failover trunk for using when the above chosen trunk is not available. |
| Dialing Rules | Define the number match pattern for dialing. |
| Define a custom pattern | N digit from 2 to 9 Z digit from 1 to 9 X digit from 0 to 9 . One digit or multiple digits |

| | |
|---------------------------|--|
| Delete[]digits prefix | If deleted one digit prefix, when dial 12345, digit 2345 will be sent. |
| Auto-add digit [] | If added digit"1", when dial 12345, digit 123451 will be sent. |

3.4 Inbound Call

3.4.1 Inbound Routes

When a call from outside, you want to forward this call to an extension or IVR, this Chapter will introduce you how to deal with the inbound calls.

Please configure on this page: **【Inbound Routes】**

General

When a call from a trunk (Analog/ VoIP), it could be forwarded to an extension, call queue, conference or IVR. You can choose based on your requirement.

Analog Channel DID

If you want to direct the inbound call from a trunk (Analog) to a specified extension, call queue, conference or IVR, please configure on this page: **【Add Analog Channel】**

- Channel Choose Analog Port of trunk
- Associated Extension Select Extension, call queue, conference or IVR for DID.

VoIP Channel DID

If you want to direct the inbound call from a VoIP trunk to a specified extension, call queue, conference or IVR, please configure on this page: **【Add VoIP Channel】**

Add VoIP DID X

DID Number:

Associated Extension:

- DID Number DID number calling into VoIP (This number is configured in the advance option of VoIP trunk)
- Associated Extension Choose a specified extension, call queue, conference or IVR to be directed to call.

DOD Settings

If you want to direct the inbound call from any trunks to a specified extension, call queue, conference or IVR, please configure on this page: **【Add DOD】**

Add DOD X

DOD Number:

Associated Extension:

- DOD Number This number is the caller's phone number, it could be called from analog channel or VoIP/GSM/E1/T1 Line.
- Associated Extension Choose a specified extension, call queue, conference or IVR to be directed to call.

3.4.2 IVR

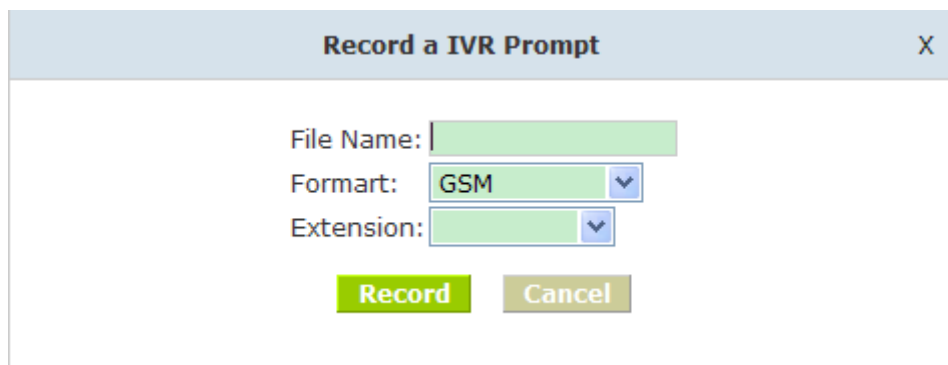
IVR will improve office efficiency based on your requirement.
Please configure on this page **【IVR】**

| Item | Explanation |
|-----------------------|--|
| Name | Set a name for the IVR |
| Extension | If you want to listen to the IVR by dialing extension, please input an number. |
| Please Select | Select IVR audio file, please configure in this page: 【IVR Prompts】 |
| Repeat Loops | loop times to repeat playing the IVR prompt. |
| Dial other Extensions | Allow caller to dial other extension besides of the ones listed as below. |
| Keypress' Events | Each digit will be related to the actions defined in the blank. |

3.4.3 IVR Prompts

Record or play IVR music from extension. Please configure on this page: 【IVR Prompts】

Click 【Record a IVR Prompt】 to display the diagram as below:



Record a IVR Prompt X

File Name:

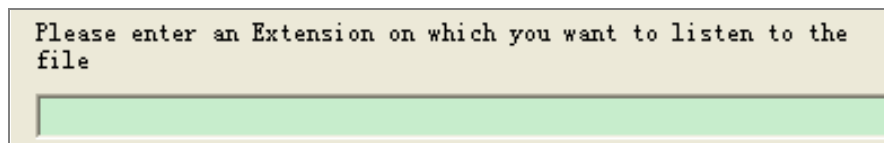
Format:

Extension:

Record **Cancel**

- File name Define a name for the recorded IVR prompt
- Format Define the format of the IVR Prompt, only GSM/WAV(16-bit)supported
- Extension Select an extension for recording, click **【Record】** button, the selected extension will ring, then you can record IVR.

If your want to listen to the recorded IVR prompt, please click **【play】** and input extension number in the following diagram, click **【confirm】** , the extension will ring and play the IVR prompt after hang up.



Please enter an Extension on which you want to listen to the file

Upload Prompts



ZYCOO [Activate Changes](#) [Logout](#)

Home **Basic** Inbound Control Inbound Routes IVR IVR Prompts Ring Groups Blacklist Time Based Rules **Advanced** Status System

Upload Prompts

IVR Prompts **Upload Prompts**

Upload Prompts

Note: The sound file must be wav(16bit/8000Hz/Single), gsm, ulaw or alaw !
The size is limited in 15MB.

Please choose file to upload: **浏览...**

Upload

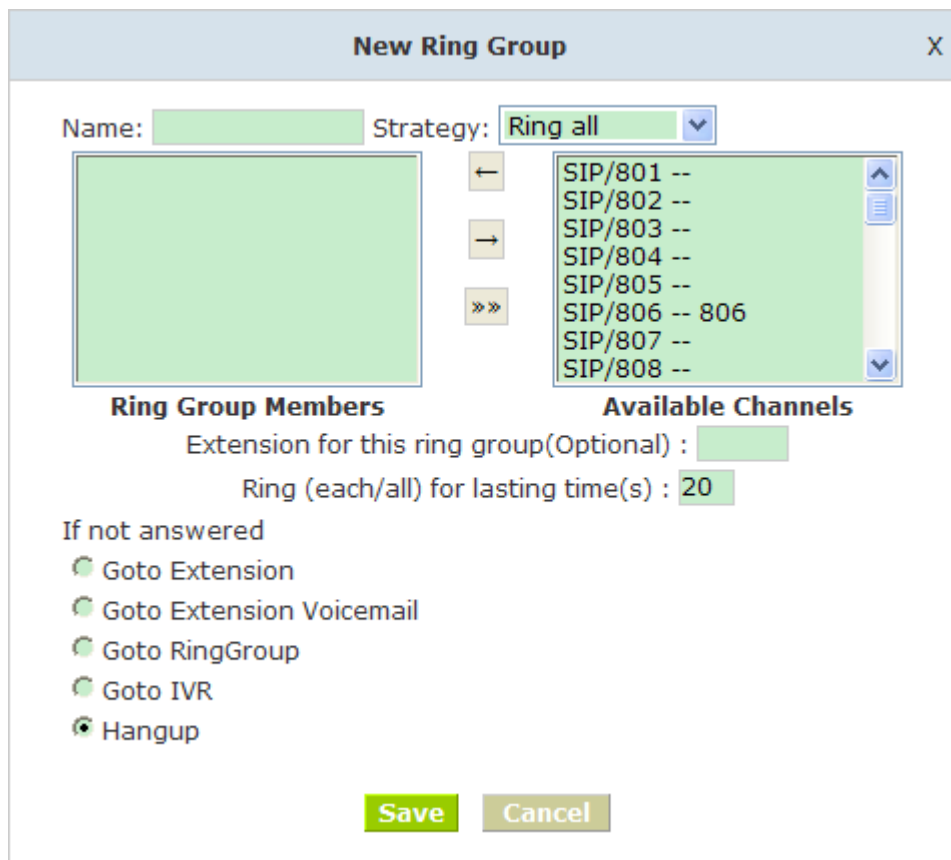
Record a IVR Prompt: You can record a IVR Prompt by any user extension device.

Zycoo PBX prompts support wav, gsm format, ulaw or alaw, and the size is limited in 15MB.

3.4.4 Ring Groups

Ring Group is a collection of extensions. When a call to a ring group, all extensions in this ring group will ring in different way based on their different configuration, if ring time exceeded defined time, the call will be directed to IVR or others based on your configuration.

There isn't any data in the factory default **【Ring Groups】** , please configure as below:
Click **【New Ring Group】** to display the diagram as below:



New Ring Group X

Name: Strategy: **Ring all** ▼

←
→
»»

SIP/801 --
SIP/802 --
SIP/803 --
SIP/804 --
SIP/805 --
SIP/806 -- 806
SIP/807 --
SIP/808 --

Ring Group Members **Available Channels**


Extension for this ring group(Optional) :

Ring (each/all) for lasting time(s) :

If not answered

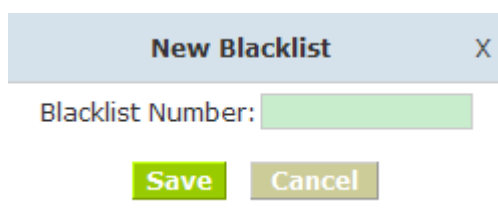
- ☐ Goto Extension
- ☐ Goto Extension Voicemail
- ☐ Goto RingGroup
- ☐ Goto IVR
- ☒ Hangup

Save **Cancel**

- Name Define a name for this ring group
- Strategy Select strategy : "Ring all" or "Ring in order"
- Ring Group Members Select ring group members in available channels, click  to add
- If not answered You can choose forward the call to extension, extension, Voicemail, RingGroup, IVR or Hangup.

3.5 Blacklist

If some numbers need to be blocked, you can use this functionality.
Please configure in **【Blacklist】** , click **【New Blacklist】** to display this dialog as below:



New Blacklist X

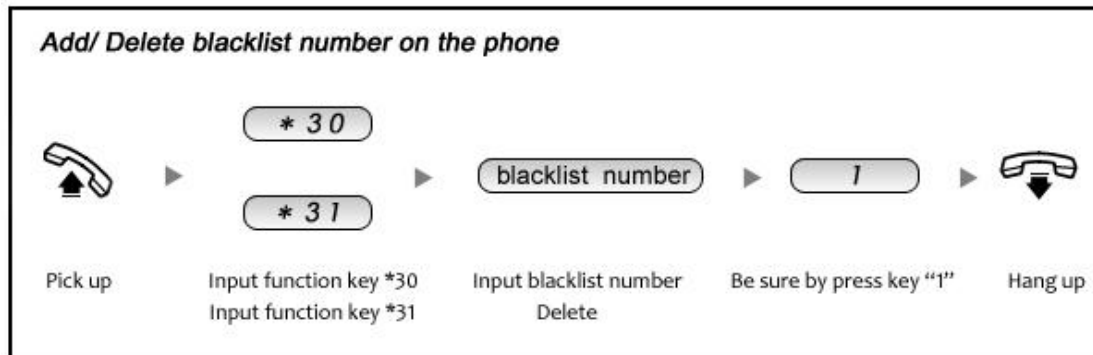
Blacklist Number:

Save **Cancel**

Input caller's number in the blank, then this caller's number will be blocked when call again.

Meanwhile, extension user can add or delete the blacklist number by function key on the phone.

Please operate as the following diagram:

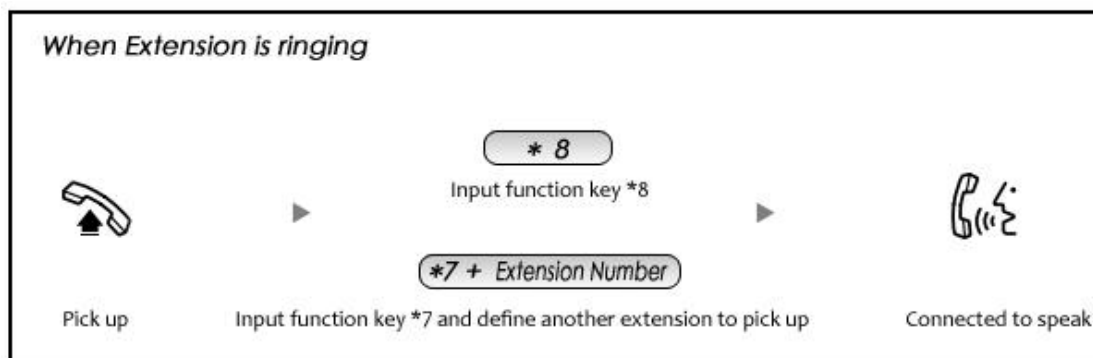


Reference Parameters and Explanation of Blacklist:

| Item | Explanation |
|------|--|
| *30 | When the extension user (in the system) input *30 to add a blacklist number, this number will be added to the "Black List" |
| *31 | When the extension user input *31+ blacklist number, this number will be deleted from the "Black List". |

3.5.1 Pickup Call

If an extension user is away from his/her desk, other extension users can pickup the call by function key on the phone. Please check the following diagram to learn:



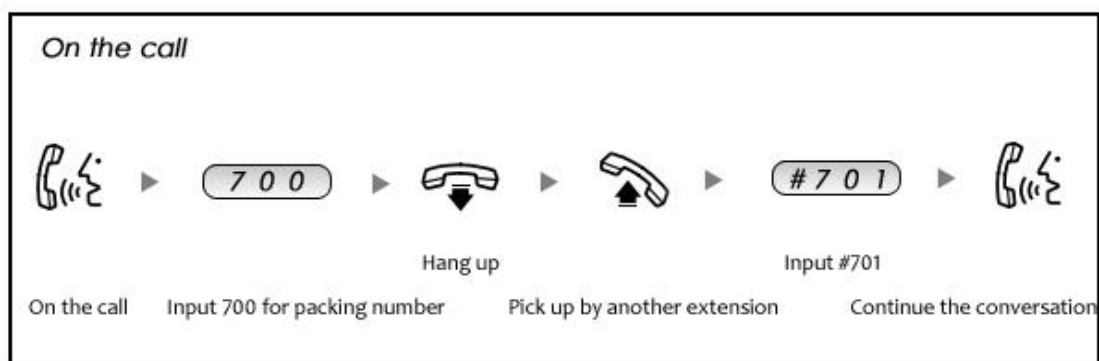
Reference Parameters and Explanation of Pickup Calls

| Item | Explanation |
|------|---|
| *8 | Pick up the ringing extension (in the system) at random. This can be defined in 【Feature Codes】 |
| *7 | Defined extension number must be inputted after *7. This can be defined in 【Feature Codes】 . |

3.6 On The Call

3.6.1 Call Parking

If you picked up a call at your seat, but it's not convenient to talk in public, you need go to the conference room to talk secretly. At this time, you can input 700 to park this call, the system will tell you a parking number 701 which you can input for continuing conversation when you go to the conference room. Please check the diagram as below to learn:

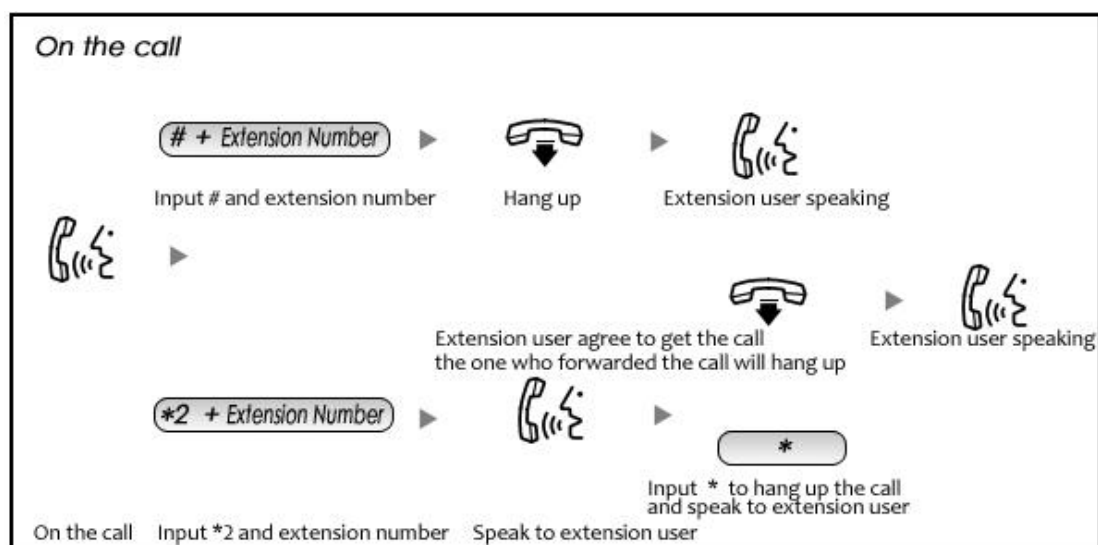


Reference Parameters and Explanation of Call Park:

| Item | Explanation |
|---|---|
| Extension to Dial for Parking Calls: | Default number is 700. It can be defined in 【Feature Codes】 |
| What extension to park calls on | Default number is 701-720. It can be defined in 【Feature Codes】 |
| How many seconds a call can be parked for | Default is 45 seconds. It can be defined in 【Feature Codes】 |

3.6.2 Transfer

If an incoming call asked to speak to your colleague, you can transfer the call directly to your colleague or transfer the call after agreed by your colleague. Please check the diagram as below to learn:



Reference Parameters and Explanation of Transfer:

| Item | Explanation |
|--|--|
| Blind Transfer | Default is #, it can be defined in 【Feature Codes】 |
| Attended Transfer | Default is *2, it can be defined in 【Feature Codes】 |
| Disconnect Call | Default is *, it can be used after you use function key " *2 ". it can be defined in 【Feature Codes】 |
| Timeout for answer on attended transfer | Default is 15 seconds, it can be defined in【Feature Codes】 |

3.6.3 Conference

If you wanted to create a conference room for some extension users or with external lines, you can input conference room number 900, input conference room password 1234 (Admin's password is 2345), then enter into conference room. This model support 3 conference rooms. Please configure on this page 【Conference】 :

Conference(Default)

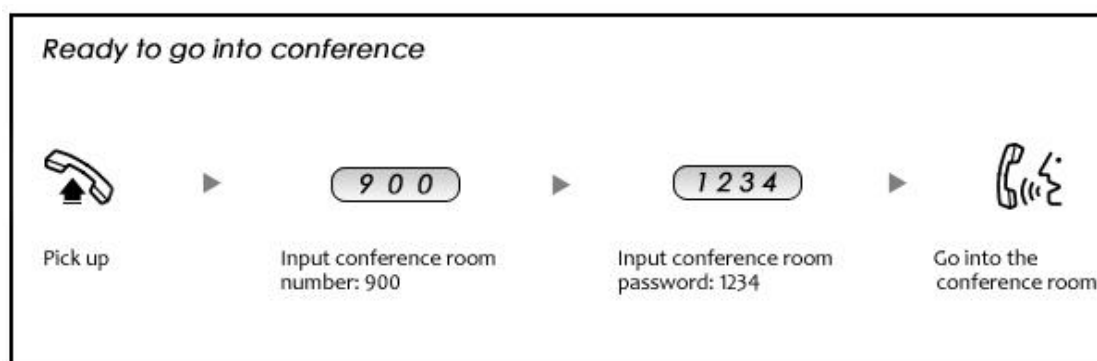
| Conference(Default) | Conference 2 | Conference 3 |
|--|--------------|--------------|
| Conference Extension | | |
| Extension: | | 900 |
| Conference Password | | |
| Guest Password: | | 1234 |
| Administrator Password: | | 2345 |
| Global Conference Options | | |
| Conference DialPlan DialPlan1 | | |
| <input checked="" type="checkbox"/> Play hold music for first caller <input checked="" type="checkbox"/> Enable caller menu <input type="checkbox"/> Announce callers <input type="checkbox"/> Record conference <input type="checkbox"/> Quiet Mode <input type="checkbox"/> Leader Wait | | |
| <div> Save Cancel </div> | | |

| Item | Explanation |
|---|--|
| Extension | The number that users call in order to access the conference room, the default number is "900". |
| Guest Password | Guest enter the conference room by this code. |
| Administrator Password | Administrator enter the conference room by this code. |
| Conference DialPlan | Use the DialPlan when you invite the other participant. |
| Play hold music for first caller | Check this option, Asterisk will play Hold Music to the first user in a conference, until another user has joined the same conference. |
| Enable caller menu | Checking this option allows a user to access the Conference Bridge menu by pressing the * key on their dialpad. |
| Announce callers | Checking this option announces to all Bridge participants, the joining of any other participants. |
| Record conference | Recording format is WAV. |
| Quiet Mode | If this option was checked, all users entering this conference will be marked as quiet, and will be in |

| | |
|--------------------|---|
| | Listen-Only mode. |
| Leader Wait | Wait until the conference leader (admin user) arrives before starting the conference. |

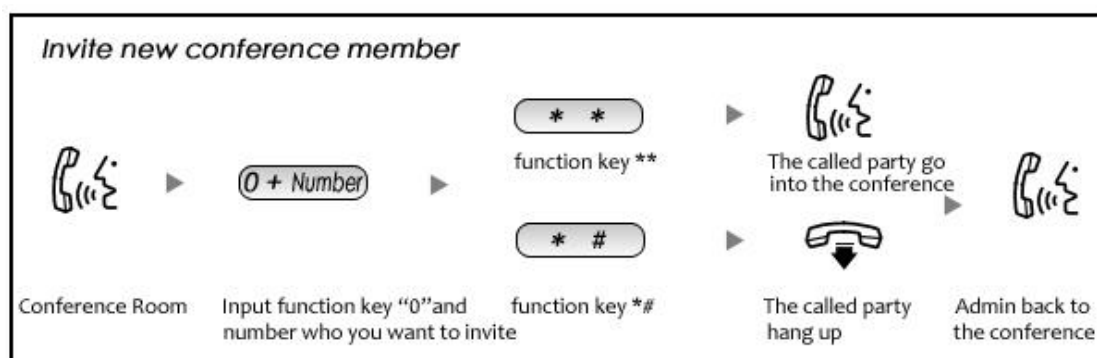
Please check the following diagram to learn:

Go to conference:



In the conference, admin can invite new guest (extension user or external number) into the conference.

Invite new guest :



3.7 Settings before leaving office

3.7.1 Follow Me

If you don't want to lose any call, you can use this function.

Please click **【Follow Me】** --- **【New Follow Me】**

New Follow Me X

Extension: v

Status: ☒ Always
☐ Busy
☐ No answer (Ring lasting for(s))

Set your Follow Me number

☒ Forward to an Internal Extension ☐ Forward to an External Number

Set Internal extension

| Item | | Explanation |
|---------------------------|----------------------------------|--|
| Extension | | Choose an extension |
| Status | Always | All incoming calls will be forwarded |
| | Busy | Forward when extension is busy |
| | No answer | Forward when extension not answer |
| Ring lasting for(s) | | Default is 20 seconds, you can define it by yourself. |
| Set your Follow Me number | Forward to an Internal Extension | Incoming call will be forwarded to internal extension. |
| | Forward to an External Extension | Incoming call will be forwarded to external number or mobile number. |
| Set Internal Extension | | Set an internal extension to pick up the call. |
| Select DialPlan | | Select DialPlan when forward the call to external number. |
| Set External Number | | Set external number, like Mobile number. |

3.7.2 VoiceMail

If you don't want to configure "Follow Me", you can record the message of incoming call, and email the message to your defined mailbox.

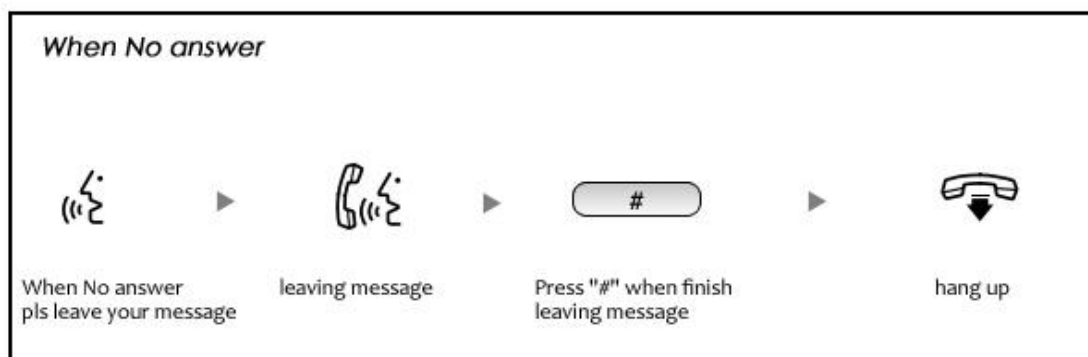
Click **【Extension】** --- **【Extension Settings】**

VoiceMail

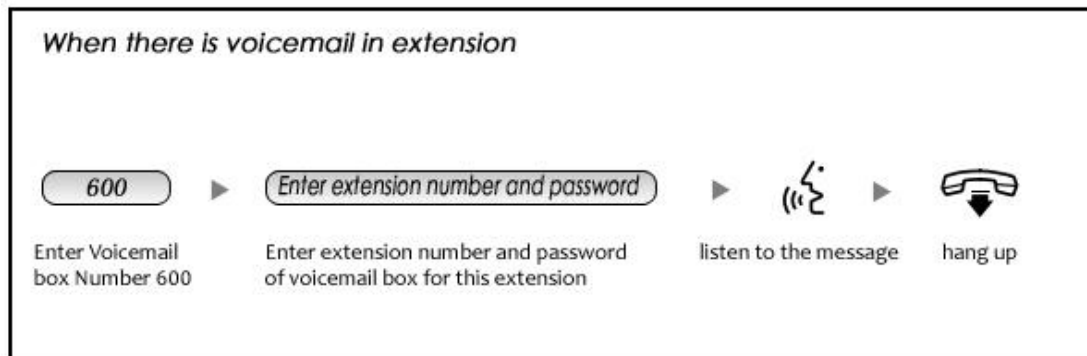
| | General | SMTP Settings | Email Settings |
|-----------------------------------|---|---------------|----------------|
| VoiceMail Options | | | |
| Checking Message: | 600 | | |
| Max Greeting(seconds): | 60 | | |
| Direct to Voicemail: | <input type="checkbox"/> | | |
| Dial '0' for Operator: | <input type="checkbox"/> | | |
| Voice Message Options | | | |
| Message Format: | WAV (16-bit) | | |
| Maximum Messages: | 100 | | |
| Max Message Time(minutes): | 5 | | |
| Min Message Time(seconds): | No Minimum | | |
| Playback Options | | | |
| | <input checked="" type="checkbox"/> Say Message Caller-ID | | |
| | <input type="checkbox"/> Say Message Duration | | |
| | <input type="checkbox"/> Play Envelope | | |
| | <input type="checkbox"/> Allow Users to Review | | |
| <div>Save</div> <div>Cancel</div> | | | |

【VoiceMail】 must be opened and 【VM Password】 must be configured before using "VoiceMail". If no answer, when default ring time is over, the system will play and ask you to leave your message, press # to end recording. If you configured email, your voice message will be sent to your defined email.

Leave a message:



Listen to the message



Note:

- 1) If you would like using this function, you must write correct email address in "extension settings"
- 2) You need configure SMTP and Email model in 【VoiceMail】, please check the details in the above chapter 【VoiceMail】

3.8 Call Queue

3.8.1 Create Agent

Check agent in the 【Extension Settings】---【Advanced Options】, then assign agent and Ring Strategy in 【Call Queue】, please learn from the following configuration interface:

Call Queue

| | Call Queue 1 | Call Queue 2 | Call Queue 3 |
|----------------------------|---|--------------|--------------|
| Call Queue Options: | <p>Queue Number: 500</p> <p>Queue Name: Service</p> <p>Ring Strategy: Random <input type="button" value="v"/></p> <p>Agents: <input type="text"/></p> | | |

| Item | Explanation |
|---------------|---|
| Queue Number | This option defines the extension number that may be dialed to reach this Queue. |
| Queue Name | This option defines a name for this Queue, eg. "Sales" |
| Ring Strategy | <p>RingAll -- Ring All available Agents until one answers(default).</p> <p>RoundRobin -- Take turns ringing each available Agent.</p> <p>LeastRecent -- Ring the Agent which was called least recently.</p> <p>FewestCalls -- Ring the Agent with the fewest completed calls.</p> <p>Random -- Ring a Random Agent.</p> <p>RRmemory --RoundRobin with Memory, and remember where it left off in the last ring pass.</p> |
| Agents | All the users who is defined as Agent will be shown here. Selected agent will be a member of the current Queue. |

| Queue Options: | Announcements: |
|---|--|
| Agent TimeOut(s): <input type="text" value="15"/> <input type="checkbox"/> Auto Pause Wrap-Up-Time(s): <input type="text" value="10"/> Max Wait Time(s): <input type="text"/> Max Callers: <input type="text" value="8"/> <input type="checkbox"/> Join Empty <input type="checkbox"/> Leave When Empty <input checked="" type="checkbox"/> Auto Fill <input type="checkbox"/> Report Hold Time | Caller Position Announcements Frequency(s): <input type="text" value="30"/> Announce Hold Time: <input type="text" value="no"/> <input type="button" value="v"/> Periodic Announcements Repeat Frequency(s): <input type="text" value="0"/> Announcements Prompt: <input type="text" value="welcome"/> <input type="button" value="v"/> |

Note:Each agent needs to login to the queue using the login extension defined in Feature Codes.

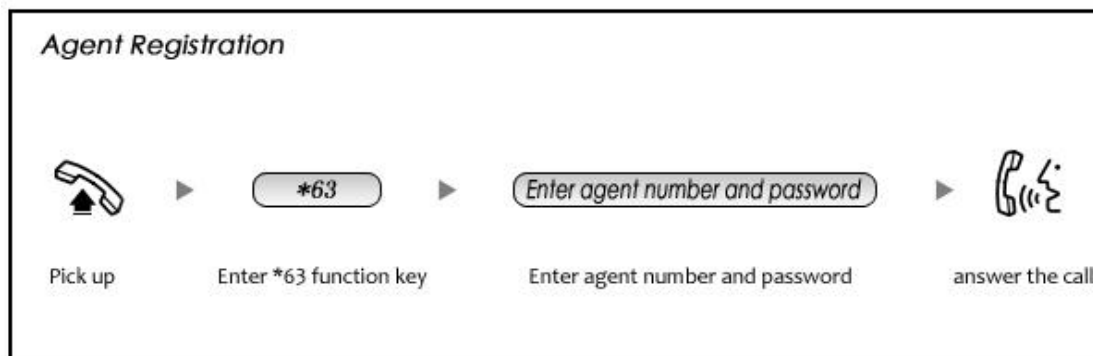
| Item | Explanation |
|------------------|--|
| Agent TimeOut(s) | This option defines the time in seconds that an Agent's phone rings before the next Agent is rung, eg. "15" |
| Auto Pause | Pause an Agent if they fail to answer a call. |
| Wrap-Up-Time(s) | After a successful call, how many seconds needed to wait before sending another call to a potentially free agent (Default is 0, which means No Delay). |
| Max Wait Time(s) | The maximum number of seconds a caller can wait in a queue before being pulled out(empty for unlimited). |

| | |
|----------------------|---|
| Max Callers | This option sets the maximum number of callers that may wait in a Queue(Default is 0, Unlimited). |
| Join Empty | Defining this option allows callers to enter the Queue when no Agents are available. If this option is not defined, callers will not be able to enter Queues with no available agents. |
| Leave When Empty | Defining this option forces all callers to exit the Queue if New Callers are also not able to Enter the Queue. This option should generally be set in concert with the "Join Empty" option. |
| Auto Fill | Defining this option causes the Queue, when multiple calls are in it at the same time, to push them to Agents simultaneously. Thus, instead of completing one call to an Agent at a time, the Queue will complete as many calls simultaneously to the available Agents. |
| Report Hold Time | Check this option if you wish to report the caller's hold time to the agent member before they are connected to the caller. |
| Frequency(s) | How often to announce queue position and estimated holdtime(0 to Disable Announcements). |
| Announce Hold Time | Should we include estimated hold time in position announcements? Either yes, no, or only once; hold time will not be announced if <1 minute. |
| Repeat Frequency(s) | How often to announce a voice menu to the caller(0 to Disable Announcements). |
| Announcements Prompt | Select the 'Announcements Prompt' from IVR Prompts |

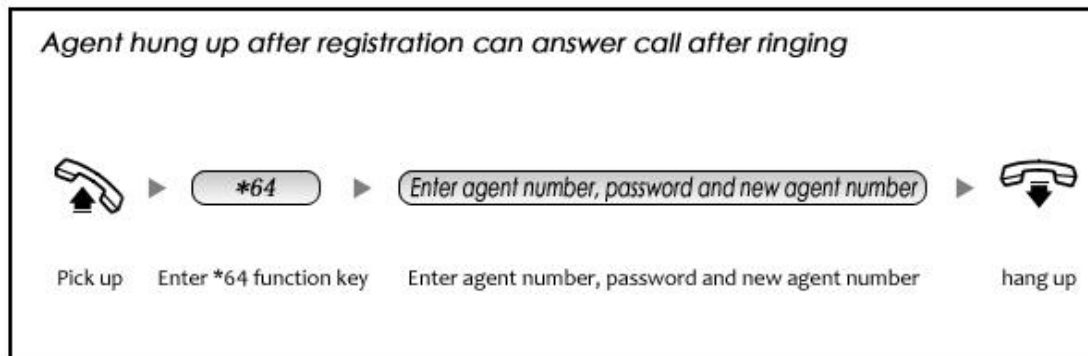
3.8.2 Agent Registration

You need register for using after creating agents.

Agent Registration when hook off



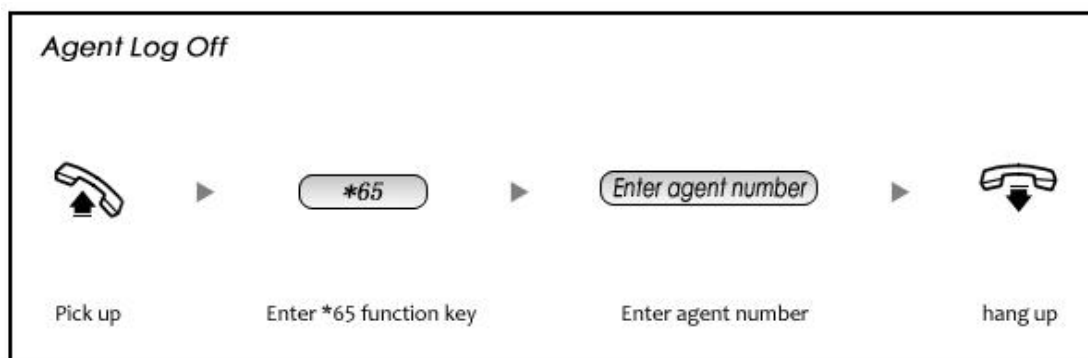
Agent Registration when hook on



3.8.3 Agent Log Off

If agent would leave and log off, none of agent will answer calls then.

Agent Log Off:



Chapter 4 Advanced

4.1 Options

Options

Options Include local extension settings and new extension default settings.

Click **【Option】** to display the dialog as below:

The screenshot shows the ZYCOO web interface for configuring options. The sidebar on the left lists various system functions. The main panel is titled 'Options' and contains two sections: 'Local Extension Settings' and 'Default Settings for New Extensions'. In the 'Local Extension Settings' section, 'Local Extensions are' is set to 'Varying', 'Operator Extension' is '1234', 'Global Ring Time Set(s)' is '30', 'Enable Transfer' is checked, 'Enable Music On Ringback' is unchecked, and the checkboxes for 'Allow multiple extensions to be assigned to one analog phone' and 'Allow extensions to be AlphaNumeric (SIP/IAX users)' are also unchecked. The 'Default Settings for New Extensions' section shows 'SIP' and 'NAT' checked, 'IAX2' and 'Agent' unchecked, and 'VM Password' set to '1234'. 'Delete VMessage' is unchecked. 'Save' and 'Cancel' buttons are located at the bottom of the configuration area.

| Item | Explanation |
|--|---|
| Local Extensions | Set up the digit of local extensions |
| Operator Extension | Set up Operator Extension. |
| Global Ring Time Set(s) | Set Ring Time for each extension. |
| Enable Transfer | Enable transfer feature key. |
| Enable Music On Ringback | Enable music on Ringback. |
| Allow multiple extensions to be assigned to one analog phone | Allow multiple extensions to be assigned to one analog phone. |
| Allow extensions to be Alpha Numeric (SIP/IAX users) | If extension is Alpha, outside line can't call in, but extension can call out. |
| SIP | Enable this option if the User or Phone is using SIP or is a SIP device. |
| IAX2 | Enable this option if the User or Phone is using IAX2 or is an IAX2 device. |
| Agent | Enable this option if the User or Phone is an Call Agent. |
| NAT | Enable this option if the User or Phone is located behind a NAT (Network Address Translation) |

| | |
|-----------------|--|
| | enabled gateway. |
| VM Password | Voicemail Password for this user, eg: "1234". |
| Delete VMessage | Voicemail will not be checkable by phone if you chose this option. Messages will be sent by e-mail only. Note:you must configure SMTP server for this functionality. |

Global Analog Settings

Click **【Options】** --- **【Global Analog Settings】** to see the following diagram:

| General | Global Analog Settings | Global SIP Settings |
|--|------------------------|---------------------|
| Caller ID Detect | | |
| <p> Caller ID Detection <input checked="" type="checkbox"/> Caller ID Signalling Bell-US <input type="button" value="v"/> Caller ID Start Ring <input type="button" value="v"/> CID Buffer Length 2500 <input type="button" value="v"/> </p> | | |
| General | | |
| <p> FXO Mode FCC <input type="button" value="v"/> Relax DTMF <input checked="" type="checkbox"/> Echo Cancel <input checked="" type="checkbox"/> Echo Training no (yes/no/number) Busy Detection <input checked="" type="checkbox"/> Busy Count 5 Call Progress <input type="checkbox"/> </p> | | |
| <p> <input type="button" value="Save"/> <input type="button" value="Cancel"/> </p> | | |

| Item | Explanation |
|----------------------|--|
| Caller ID Detection | For FXO trunk lines,this option causes PBX to look for Caller ID on incoming calls |
| Caller ID Signalling | This option allows you to choose the type of Caller ID signalling to use. Bell-US-- Used in the United States; DTMF-- Used for CallerID under DTMF mode.(eg: Denmark, Sweden and Netherlands etc); V23-- used in the UK; V23-Japan-- used in Japan |
| Caller ID Start | This option allows you to define the start of a Caller |

| | |
|-------------------|--|
| | ID signal: Ring-- to start when a ring is received. Polarity-- to start when a polarity reversal is started. |
| CID Buffer Length | Default CID Buffer Length |
| FXO Mode | Select FXO Mode here |
| Relax DTMF | If you met trouble with DTMF detection, you can relax the DTMF detection. |
| Echo Cancel | Enable/Disable the Echo Cancel function. |
| Echo Training | Enabling echo training will cause the PBX system to briefly mute the channel, send an impulse, and use the impulse response to pre-train the echo canceller so it can start out with a much closer idea of the actual echo. Value may be "yes", "no", or a number of milliseconds to delay before training (default = 400) |
| Busy Detection | Used for detecting far end hang up or a busy signal. |
| Busy Count | If Busy Detection is enabled, it is also possible to specify how many busy tones to wait for before hanging up. The default is 4, but better results can be achieved if set to 6 or even 8. Mind that the higher the number, the more time that will be needed to hang up a channel, but lower the probability that a false detection may occur. |
| Call Progress | If turned on, call progress attempts to determine answer, busy, and ringing on phone lines. |

Global SIP Settings

【Global SIP Settings】is appropriated for operating by professional engineer or technician, if you need modification, please contact with our technician support.

4.2 Voicemail

Details configuration on Voicemail: Voicemail Reference/ Voice Message Options/ Playback Options. If you need send message by mail to your defined mailbox, you must configure SMTP and Email model. Click 【Voicemail】 to display the dialog as below:

VoiceMail

| | General | SMTP Settings | Email Settings |
|--|---|---------------|----------------|
| VoiceMail Reference | | | |
| Extension for checking messages: | 600 | | |
| Max greeting(seconds): | 60 | | |
| Direct to Voicemail: | <input type="checkbox"/> | | |
| Dial '0' for Operator: | <input type="checkbox"/> | | |
| Voice Message Options | | | |
| Message Format: | WAV (16-bit) | | |
| Maximum messages: | 100 | | |
| Max message time(minutes): | 5 | | |
| Min message time(seconds): | No minimum | | |
| Playback Options | | | |
| | <input checked="" type="checkbox"/> Say message Caller-ID | | |
| | <input type="checkbox"/> Say message duration | | |
| | <input type="checkbox"/> Play envelope | | |
| | <input type="checkbox"/> Allow users to review | | |
| <div> <div>Save</div> <div>Cancel</div> </div> | | | |

| Item | Explanation |
|---------------------------------|--|
| Extension for checking messages | The number that users call in order to access their voicemail accounts, the default number is "600". |
| Max greeting(seconds) | Defining this option to set a maximum time for the greeting message. |
| Direct to Voicemail | Defining this option to go to voicemail box directly. |
| Dial "0" for Operator | Callers entering the voicemail application can leave for Operator by dialing "0". |
| Message Format | Choose the format of the voicemail messages in this selection box. |
| Maximum Messages | Choose the maximum number of messages in this selection box. |
| Maximum message time (min) | Choose the maximum duration of a voicemail message. Message recording will be stopped when it's timeout. |
| Minimum message time (s) | Choose the minimum duration of a voicemail message in this selection box. Message time below this threshold will be deleted automatically. |
| Say message Caller-ID | Choose this option to play Caller's ID before voicemail message is played. |

| | |
|-----------------------|---|
| Say message duration | Choose this option to play the duration of message before the voicemail message is played. |
| Play envelope | Choose this option to play envelop (including date, time and caller ID). |
| Allow users to review | Choosing this option, the caller leaving the voicemail can review their recorded message before it's submitted. |

SMTP Settings:

Voicemail

| General | SMTP Settings | Email Settings |
|--|---------------|----------------|
| SMTP Settings: | | |
| SMTP server: <input type="text"/> Port: <input type="text" value="25"/> SSL/TSL: <input type="checkbox"/> <input type="checkbox"/> Enable SMTP Authentication <div> <input type="button" value="Save"/> <input type="button" value="Cancel"/> </div> | | |

| Item | Explanation |
|----------------------------|--|
| SMTP server | In order to send e-mail notifications of your voicemail. Set the IP address or domain name of a SMTP server that your IP PBX may connect to. eg: mail.yourcompany.com |
| Port | The port number which the SMTP server running is generally port 25. If SSL is encrypted, please use port 465 instead. |
| SSL/TSL | Enable use SSL/TLS to send secure messages to server. |
| Enable SMTP Authentication | If your SMTP server needs Authentication, please enable SMTP Authentication, and configure the following information. |
| Username | Input username of your email box. |
| Password | Input password of your email box. |

Email Settings

VoiceMail

| General | SMTP Settings | Email Settings |
|--|---------------|----------------|
| Template for Voicemail Emails | | |
| <div style="padding: 10px;"> <input checked="" type="checkbox"/> Attach recordings to e-mail <div style="margin-top: 10px;"> Sender Name IPPBX Server From username@mailserver.com Subject you've a voicemail from \${VM_CALLERID} Message <div style="border: 1px solid #ccc; padding: 5px; min-height: 100px;"> Dear \${VM_NAME}, you have a new voicemail from \${VM_CALLERID}, the message time is \${VM_DUR}. </div> </div> <div style="text-align: center; margin-top: 10px;"> Save Cancel </div> </div> | | |
| <p>Template Variables:</p> <ul style="list-style-type: none"> \${VM_NAME} : Recipient's firstname and lastname \${VM_DUR} : The duration of the voicemail message \${VM_MAILBOX} : The recipient's extension \${VM_CALLERID} : The caller id of the person who left the message \${VM_MSGNUM} : The message number in your mailbox \${VM_DATE} : The date and time the message was left | | |

| Item | Explanation |
|-----------------------------|---|
| Attach recordings to e-mail | This option defines whether or not voicemails are sent to the Users' e-mail addresses as attachments. |
| Sender Name | Display the Sender name when you receive a voicemail. |
| From | Sender's email address |
| Subject | Subject of the mail |
| Message | The message pattern |

4.3 Music Settings

Management for music on hold, music on ringback, music on call queue.

Click **【Music Settings】** to display the dialog as below:

Music Settings:

Music Settings

| | | |
|---|-----------------------|------------------|
| | Music Settings | Music Management |
| Music On Hold Reference | | |
| Music: | | Music 1 ▼ |
| Music On Ringback Reference | | |
| Music: | | Music 2 ▼ |
| Music On Call Queue Reference | | |
| Music: | | Music 3 ▼ |
| <input type="button" value="Save"/> <input type="button" value="Cancel"/> <input type="button" value="Music Reload"/> | | |

Please define different music file for different music folders.

Music Management:

| | | |
|--|-------------------------|---------------------------------------|
| Music Settings | Music Management | |
| Music Management | | |
| Directory: | Music 1 ▼ | <input type="button" value="Load"/> |
| Files: | ▼ | <input type="button" value="Delete"/> |
| Upload Music File | | |
| Select Music Directory: Music 1 ▼ | | |
| <p>Note: The sound file must be wav(16bit/8000Hz/Single), gsm, ulaw or alaw ! The size is limited in 15MB.</p> | | |
| Please choose file to upload: | | <input type="button" value="浏览..."/> |
| <input type="button" value="Upload"/> | | |

| Item | Explanation |
|---------------------------|---|
| Directory | Load music in the music file. |
| Files | Display music in the music file, or you can delete it. |
| Enter The Music File Name | Input music file name which you want to upload.(GSM/WAV format, If it's WAV, it must be accord with PCM 16 bits, 8000HZ format) |
| TFTP Server IP address | Please enter your TFTP server IP address. |
| Select Music Directory | Select directory where the uploaded music file will be saved. |

4.4 DISA

A trunk call into the PBX, and call to another trunk through outbound route of the PBX. Eg: This trunk can make international call, you are out of the office and want to contact with your customer in foreign country, now you can dial DISA number, after PIN authentication, you are connected to your customer, and you can speak to your customer now. Click **【DISA】** --- **【New DISA】** to display the dialog as below:

| Item | Explanation |
|------------------------------------|--|
| Name | Give this DISA a brief name to help you identify it. |
| PIN | The user will be prompted for this number |
| Response Timeout(s) | The maximum amount of time it will wait before hanging up if the user has dialed an incomplete or invalid number. Default is 10 seconds. |
| Digit Timeout(s) | The maximum amount of time permitted between digits when the user is typing in an extension. Default is 5 seconds. |
| Extension for this DISA (Optional) | If you want this DISA to be accessible by dialing an extension, you can define an extension number for this DISA. |
| Select DialPlan | Set the DialPlan that calls will originate from. |

4.5 Paging And Intercom

Paging And Intercom is used for calling a paging extension, all terminals which support this function will be picked up automatically and listen, meanwhile, it supports duplex. Click **【Paging And Intercom】** --- **【Add Paging Group】** to display the dialog as below:

| Item | Explanation |
|----------------------|--|
| Paging Extension | The number users will dial to page this group. |
| Description | Provide a descriptive title for this Page Group. |
| Paging Group Members | Selected device(s) in this page |
| Device List | Select Device(s) to Page. |
| Duplex | Paging is typically one way for announcements only. Checking this will make the paging duplex, allowing all phones in the paging group to be able to talk and be heard by all. This makes it like an "instant conference". |

4.6 Call Recording

Call Recording is used for recording the defined extensions.

Click **【Call Recording】** --- **【New Call Recording】** to display the dialog as below:

New Call Recording X

Extension:

Call Recording Time

Always Call Recording: ☐

Start Time: :

End Time: :

Start Day: End Day:

Call Recording Settings

Inbound Record: ☐

Outbound Record: ☐

Save

Cancel

| Item | Explanation |
|---------------------|--------------------------------|
| Extension | Define an extension. |
| Call Recording Time | Set monitoring time |
| Inbound Record | Check to record inbound calls |
| Outbound Record | Check to record outbound calls |

4.7 Phone Book

If incoming call was matched with the number in the phone book, the incoming call will display the name of matched number.

Click **Phone Book** to display the dialog as below:

Phonebook

Upload Phonebook

Phonebook Log

Phonebook

Name:

Search

Show All

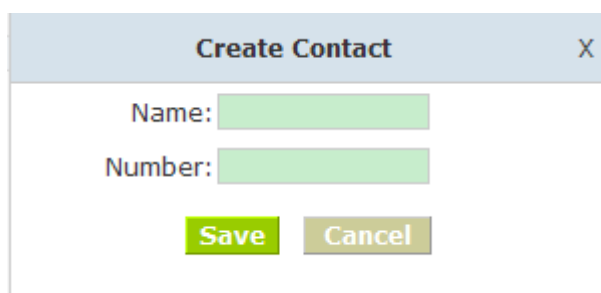
| S.No | Name | Number | Options |
|----------------------|------|--------|---------|
| No Contact defined ! | | | |

- Search Input contact name to search
- Show All Show all contacts

- 42 -

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4Gon www.4Gon.co.uk info@4gon.co.uk Tel: +44 (0)1245 808295 Fax: +44 (0)1245 808299



Create Contact X

Name:

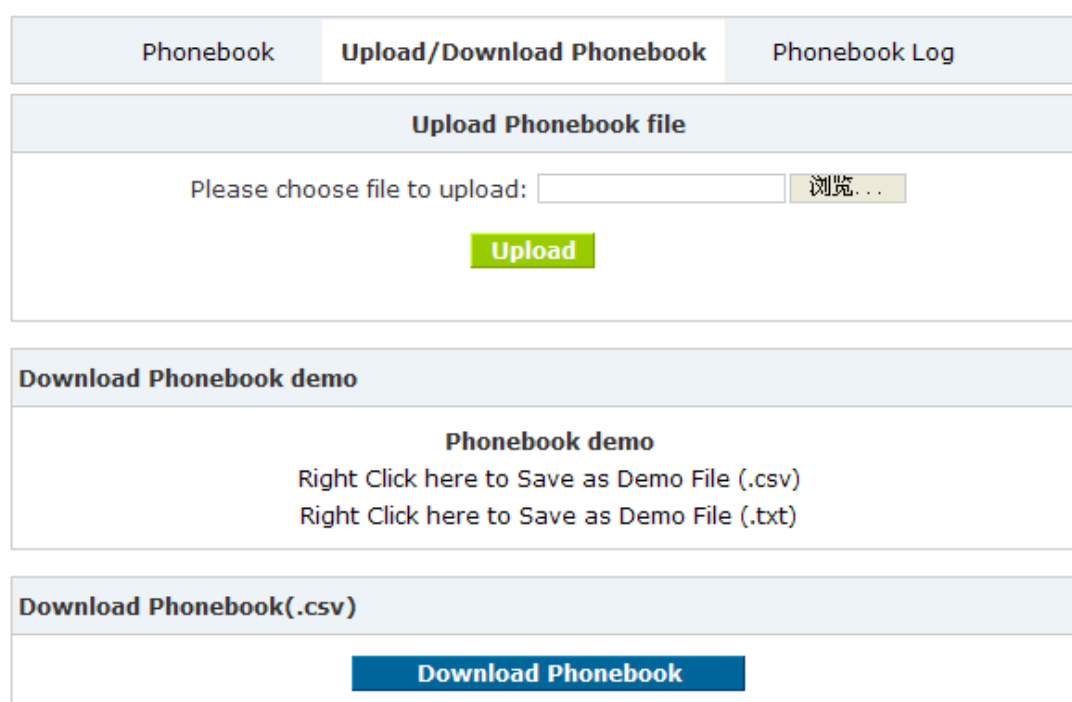
Number:

Save **Cancel**

- Name Add contact's name, Alphabetic or numeric only.
- Number Add contact's number, international phone number is supported.

ZX20 IP PBX also support "Batch Add Users", Click **【Advanced】** -> **【Upload/Download Phonebook】** to display the following diagram:

Upload Users Script file



Phonebook **Upload/Download Phonebook** Phonebook Log

Upload Phonebook file

Please choose file to upload: 浏览...

Upload

Download Phonebook demo

Phonebook demo

Right Click here to Save as Demo File (.csv)

Right Click here to Save as Demo File (.txt)

Download Phonebook(.csv)

Download Phonebook

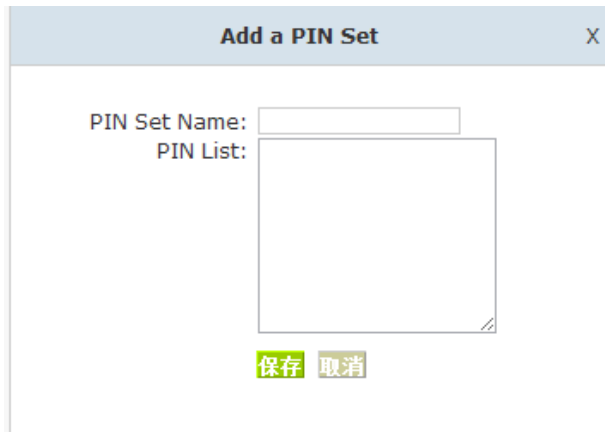
Download a phonebook demo from **【Download Phonebook demo】**, add and save information refer to the demo content, choose the file what you want to uploaded from **【Upload Phonebook file】**

You can download the phonebook file from **【Download Phonebook(.csv)】**

4.8 PIN Set

PIN Set will distribute one PIN Code to different extension user, if you selected PIN Set on the Dial rule page in Outbound menu, the extension user who has the PIN code can dial long distance call. Click **【Pin Set】** to show the dialog as below:

Pic. 4.8-1 Add a PIN Set



- PIN Set Name Set the PIN Sets Name
- PIN List Enter a list of one or more PINs. One PIN per line.

4.9 Feature Codes

Click 【 Feature Codes 】 to display the dialog as below, you can define relevant parameter.

Feature Codes Management

Call Parking

Extension to Dial for Parking Calls: 700

What extensions to park calls on: 701-720 (Eg: '701-720')

How many seconds a call can be parked for: 45

Pickup Call

Pickup Extension: *8

Pickup Specified Extension: *7

Transfer

Blind Transfer: #

Attended Transfer: *2

Disconnect Call: *

Timeout for answer on attended transfer: 15

Black List

Blacklist a number: *30

Remove a number from the blacklist: *31

Conference

Invite Participant: 0

Create Conference: *0

Return to conference with participant: **

Return to conference without participant: *#

Call Queue

Agent Login Extension: *63

Agent Callback Login Extension: *64

Agent Logoff Extension: *65

Pause Queue Member Extension: *66

Unpause Queue Member Extension: *67

Save

Cancel

| Item | Explanation |
|---|---|
| Extension to Dial for Parking Calls | Set Call Parking number. |
| What extensions to park calls on | What extensions to park calls on, eg: (701-720) |
| How many seconds a call can be parked for | Set the call time by second, if it's time out, system will call the previous extension again. |
| Pickup Extension | Set Pickup Extension. |
| Pickup Specified Extension | Set Pickup Specified Extension, default: dial *7+extension to pickup the extension. |
| Blind Transfer | Allow unattended or blind transfers. It works like this: While on a conversation with A, you dial the blind transfer key sequence. The system says "Transfer" then gives you a dial tone, while A is on hold. You dial the transferee number(B's number) and A is put through to B immediately. Your line is off. The caller ID displayed to B is exactly the same as the |

| | |
|--|---|
| | caller ID presented to you. |
| Attended Transfer | Allow attended transfer or supervised transfer. It works like this: While on conversation with A, you dial the Attended Transfer key sequence. The system says "Transfer" then gives you a dial tone, while A is on hold. You dial the transferee number(B's number) and talk with B to introduce the call, then you can hang up and A will be connected with the B. In case B does not want to answer the call, he/she simply hangs up and you will be back to your original conversation. |
| Disconnect Call | Disconnect the current transfer call(for Attended transfer). |
| Timeout for answer on attended transfer | Set the answer timeout value. |
| Blacklist a number | Add a black list number. |
| Remove a number from the black list | Remove a black list number. |
| Invite Participant | The administrator can invite another person by pressing 0 when he/she is in the conference. When you press 0, you will get a dialtone to enter the number of part A you also would like to invite. After the call has been established and you talk to B, you can press ** to direct him to the conference, or *# to hang up the current call and return to the conference yourself. |
| Create Conference | While you speak with another party you can press *0, you and the callee are immediately transferred to conference. |
| Return to conference with participant | The administrator can invite another person by pressing 0 when he/she is in the conference. When you press 0, you will get a dialtone to enter the number of part A you also would like to invite. After the call has been established and you talk to B, you can press ** to direct him to the conference, or *# to hang up the current call and return to the conference yourself |
| Return to conference without participant | The administrator can invite another person by pressing 0 when he/she is in the conference. When you press 0, you will get a dialtone to enter the number of part A you also would like to invite. After the call has been established and you talk to B, you can press ** to direct him to the conference, or *# to hang up the current call and return to the conference yourself. |
| Agent Login Extension | Logs the current caller into the queue as a call agent. Once logged in, the agent can take calls with the phone off-hook; each call is preceded by a warning tone. Calls are ended by pressing the "*" key. |
| Agent Callback Login | Extension to be dialed for the Agents to Login to the Specific |

| | |
|--------------------------------|--|
| Extension | Queue. Same as Agent Login Extension, except you do not have to remain on the line. |
| Agent Logoff Extension | Agent logoff from the queue. |
| Pause Queue Member Extension | 'Pauses' a queue member. so that the member can not receive calls. |
| Unpause Queue Member Extension | 'Unpause' a queue member who is 'paused' previously. so that the member can receive calls again. |

4.10 Phone Provisioning

When you need many IP Phone for using, please record the MAC, extension number, and username of each phone according to the format (please take reference of the auto provision script file model for details) , then, import the format file, once the phone is connected to the local network, it will get the extension number and password automatically.

There are two operation methods to fulfill this function, please see details as below:

Enable DHCP service

Click **【System】** -> **【Network Advanced】** , enable DHCP Server in the dialog as below:

| WAN Port Setup | |
|----------------|---------------|
| IP Assign: | DHCP ▼ |
| IP Address: | 192.168.1.72 |
| Subnet Mask: | 255.255.255.0 |
| Gateway: | 192.168.1.1 |
| Primary DNS: | 192.168.1.1 |
| Alternate DNS: | |
| HTTP Port: | 9999 |

Method:

Click **【Extension】** -> **【Create New User】**, select the relative IP Phone manufacture, and input relative MAC in the part of Auto Provision, Save and Activate.

Phone Provisioning

| | | | |
|--|---------------------------------|-----|--------|
| Manufacturer: | Zycoo ▼ | Mac | 00a859 |
| Audio Codecs | Zycoo Yealink Grandstream | | |
| <input type="checkbox"/> alaw <input type="checkbox"/> ulaw <input type="checkbox"/> G.726 <input type="checkbox"/> GSM <input type="checkbox"/> Speex | | | |

Chapter 5 Status

This chapter will introduce you the status of record list, call logs, system info, register status etc.

5.1 Recording List

Check the record list of defined extension or conference, you can delete the record list. Click **【Recording List】** --- **【Extension】** and **【Conference】** will be displayed as below:

Extension List Interface

Recording List

| Extension | | Conference | |
|-------------------------------------|--|---------------|--|
| Extension: | <input type="text"/> | Delete | |
| Start Date: | <input type="text" value="Sep"/> <input type="text" value="19"/> <input type="text" value="2012"/> | End Date: | <input type="text" value="Sep"/> <input type="text" value="19"/> <input type="text" value="2012"/> Go |
| List of Call Recording Files | | | |
| S.No | Caller ID | Destination | Date Options |

Conference List interface

| Extension | | Conference | |
|---|--|------------|--|
| Start Date: | <input type="text" value="Sep"/> <input type="text" value="19"/> <input type="text" value="2012"/> | End Date: | <input type="text" value="Sep"/> <input type="text" value="19"/> <input type="text" value="2012"/> Go |
| List of Conference Recording Files | | | Delete All |
| List of Conference Recording Files | | | |
| S.No | Conference Room | Date | Options |

5.2 Call Logs

Check call logs of extension by caller ID or callee ID. Click **【Call Logs】** to display the dialog as below:

Call Logs Interface

Call Logs


| | | | | |
|-------------|---|-----------------|--|---------------|
| Start Date: | <input type="text" value="Jul"/> <input type="text" value="5"/> <input type="text" value="2011"/> | Field: | <input type="text" value="Caller ID"/> | Filter |
| End Date: | <input type="text" value="Jul"/> <input type="text" value="5"/> <input type="text" value="2011"/> | Download | | Delete |
| Call Start | Caller ID | Destination | Duration (sec) | Disposition |

**Note:**

Duration in the call logs is not real charged duration, if you need billing, PSTN must support polarity reversal function, meanwhile, you must configure relevance parameters of polarity reversal in trunk configuration for the IP PBX.

5.3 Register Status

Check SIP/ IAX2 User, and SIP/IAX2 Trunk status. Click **【Register Status】** to display the dialog as below:

Register Status 

| | SIP Users Status | IAX2 Users Status | SIP Trunks Status | IAX2 Trunks Status |
|---|------------------|-------------------|-------------------|--------------------|
| SIP Users Status: | | | | |
| Name/username | Host | Dyn | Nat | ACL Port Status |
| 810 | (Unspecified) | D | N | 0 UNKNOWN |
| 809 | (Unspecified) | D | N | 0 UNKNOWN |
| 808 | (Unspecified) | D | N | 0 UNKNOWN |
| 807 | (Unspecified) | D | N | 0 UNKNOWN |
| 806 | (Unspecified) | D | N | 0 UNKNOWN |
| 805 | (Unspecified) | D | N | 0 UNKNOWN |
| 804 | (Unspecified) | D | N | 0 UNKNOWN |
| 803 | (Unspecified) | D | N | 0 UNKNOWN |
| 802 | (Unspecified) | D | N | 0 UNKNOWN |
| 801 | (Unspecified) | D | N | 0 UNKNOWN |
| 10 sip peers [Monitored: 0 online, 10 offline Unmonitored: 0 online, 0 offline] | | | | |

5.4 System Info

Check OS version, firmware version and memory, etc from here.

Click **【System Info】** to display the dialog as below:



Home
Basic
Inbound Control
Advanced
Status
Recording List
Call Logs
Register Status
System Info
System

System Info

System Info

Resources

OS Version:
Linux IP PBX 2.6.22.18

Uptime:
08:03:25 up 3 min,
Load Average: 0.12, 0.16, 0.07

Firmware Version:
Zycoo System v1.2

Server Date & TimeZone:
Mon Jan 1 08:03:25 WST 2007 [Refresh](#)
[Synchronize](#)

Hostname:
IPPBX

Chapter 6 System

This chapter will introduce you how to configure the system of ZYCOO IP PBX.

6.1 Network And Country

Configure WAN/ LAN IP, and tone zone.

Click **【Network And Country】** to display the dialog as below:

| 名称 | 说明 |
|-----------------------|---|
| IP Assign | Static, DHCP are supported |
| HTTP Port | Set the http server port, default is 9999 |
| Remote Administration | Enable/ Disable Access GUI through WAN port. |
| Tone Zone Settings | Define the tone zone for home country or place. |

6.2 Troubleshooting

You can ping other network device through ZYCOO IP PBX and track network route by command "Traceroute" .

Click **【Troubleshooting】** to display the dialog as below:

TroubleShooting

| | Ping | Traceroute |
|--|------|------------|
|--|------|------------|

Ping 192.168.1.1 Packets: 4 Start Stop

```

PING 192.168.1.1 (127.0.0.1): 56 data bytes
64 bytes from 127.0.0.1: icmp_seq=0 ttl=64 time=1.5 ms
64 bytes from 127.0.0.1: icmp_seq=1 ttl=64 time=0.5 ms
64 bytes from 127.0.0.1: icmp_seq=2 ttl=64 time=0.5 ms
64 bytes from 127.0.0.1: icmp_seq=3 ttl=64 time=0.5 ms

--- 192.168.1.1 ping statistics ---
4 packets transmitted, 4 packets received, 0% packet loss
round-trip min/avg/max = 0.5/0.7/1.5 ms

```

6.3 Network Advanced

DHCP Server Settings

ZX20 Series IP PBX support DHCP , Click **【Network Advanced】** -> **【DHCP Server Settings】** to show the following diagram:

| WAN Port Setup | |
|----------------|--|
| IP Assign: | <input type="text" value="DHCP"/> |
| IP Address: | <input type="text" value="192.168.1.72"/> |
| Subnet Mask: | <input type="text" value="255.255.255.0"/> |
| Gateway: | <input type="text" value="192.168.1.1"/> |
| Primary DNS: | <input type="text" value="192.168.1.1"/> |
| Alternate DNS: | <input type="text"/> |
| HTTP Port: | <input type="text" value="9999"/> |

DDNS Settings

After configure DDNS, you can visit by domain remotely.

Click **【DDNS Settings】** to display the dialog as below:

DDNS Settings

| DHCP Server Settings | DDNS Settings | VPN Settings |
|--|---------------|--------------|
| DDNS | | |
| <p>DDNS Enable: <input checked="" type="checkbox"/></p> <p>DDNS Server: <input type="text" value="dyndns.org"/></p> <p>Username: <input type="text" value="zycoo"/></p> <p>Password: <input type="password" value="....."/></p> <p>Domain: <input type="text" value="zycoo.no-ip.org"/></p> <p>Update Time(s): <input type="text" value="120"/></p> <p><input type="button" value="Save"/></p> | | |
| <p>Status: Disabled</p> | | |

VPN Settings:

A virtual private network (VPN) is a method of computer networking---typically using the public internet---that allows users to privately share information between remote locations, or between a remote location and a business' home network. A VPN can provide secure information transport by authenticating users, and encrypting data to prevent unauthorized persons from reading the information transmitted. The VPN can be used to send any kind of network traffic securely. ZX20 Series IP PBX support N2N and L2TP.

VPN Settings

| DHCP Server Settings | DDNS Settings | VPN Settings |
|--|---------------|--------------|
| VPN | | |
| <p>VPN Mode: N2N <input checked="" type="radio"/> L2TP <input type="radio"/></p> <p>VPN Enable: <input type="checkbox"/></p> <p>Server Address: <input type="text"/></p> <p>Port: <input type="text"/></p> <p>Local IP: <input type="text"/></p> <p>Subnet Mask: <input type="text"/></p> <p>Local Port: <input type="text"/></p> <p>Username: <input type="text"/></p> <p>Password: <input type="password"/></p> <p><input type="button" value="Save"/> <input type="button" value="Cancel"/></p> | | |
| <p>Status: Disconnect</p> <p>IP Address:</p> | | |

**Note:**

- 1) DDNS supports the domain provided by DynDNS.org/ No-ip.com only.
- 2) VPN supports N2N/L2TP only.

6.4 Time Settings

Click **【Time Settings】** to display the diagram as below:

NTP

Time Settings

Time Settings

☒ NTP
☐ Manual Time Set

NTP Server:

Time Zone:

Manual Time Set

Time Settings

Time Settings

☐ NTP
☒ Manual Time Set

Year: (YYYY, eg: 2010)

Month: (MM, eg: 05)

Day: (DD, eg: 08)

Hour: (HH, eg: 09)

Minute: (MM, eg: 30)

Synchronize current PC time
Sync

| Item | Explanation |
|------------|---|
| NTP Server | Specify the NTP server that you wish to use. You may type either the domain name or the IP address of the server, and it may be either remote or local. The default server is pool.ntp.org. Be aware that the PBX needs to be able to connect to a NTP server for perfect function. |
| Time Zone | Select your time zone so that the system will set time based on the time zone. |

Synchronize with
current PC time

Click the button to synchronize the PBX time with the current PC time.

6.5 Management

Management

Click **【Management】** to display the diagram as below:

Management

| Management | Access Permit | SIP Register Allowed |
|--|---------------|----------------------|
| <div>Change Password</div> <div> Username: <input type="text"/> Password: <input type="password"/> New Username: <input type="text"/> New Password: <input type="password"/> Retype New Password: <input type="password"/> </div> <div>Apply</div> | | |
| <div>Set Language</div> <div> Set Voice Language: <input type="text" value="English"/> <input type="button" value="v"/> </div> <div>Save</div> | | |

- Change Password You can change the password of admin here (default password is admin)
- Set Language Set voice language of the system. And you can set the SIP & Analog channel here by clicking "Show Advanced Options"

Access Permit

Click **【Access Permit】** to display the diagram as below:

| | | |
|---|----------------------|----------------------|
| Management | Access Permit | SIP Register Allowed |
| Deny any IP attempting to access GUI except for the ones in the list below <input type="checkbox"/> | | Save |
| List of Permitted IP Address | | |
| No Access Permit address defined! | | |

**Note:**

After you added a permitted IP, you can only login the system by this IP, other IP address isn't effective to login the system.

SIP Registered Allowed

Click **【SIP Registered Allowed】** --- **【Add Permitted IP】** to define the allowed SIP user. Input the permitted IP address---IP address and network restriction.eg: "192.168.1.77" or "192.168.10.0/255.255.255.0"

| | |
|-------------------------|----------------------|
| Add Permitted IP | X |
| Permitted IP address: | <input type="text"/> |
| Save | Cancel |

In the following diagram, 192.168.1.100 is the allowed IP registered by SIP.

| Management | Access Permit | SIP Register Allowed | |
|--------------------------------------|---------------|-----------------------------|--|
| List of SIP Allowed IPAddress | | | |
| S.No | Allowed IP | Options | |
| 1 | 192.168.1.100 | Delete | |

6.6 Data Storage

Upload the voicemail, call recording, conference, call logs, etc to the defined FTP server for storage.

Click **【Data Storage】** to display the diagram as below:

FTP Data Storage

| Data Storage | Data Storage Log |
|---|------------------|
| FTP Data Storage | |
| <p>Enable Uploading: <input checked="" type="checkbox"/></p> <p>Server Address: 192.168.1.93</p> <p>User Name: gang</p> <p>Password: •</p> <p>Directory: 1</p> <p>Save</p> | |
| <p>Status: Failed to connect to Ftp Server or upload test file.</p> | |

Upload Voicemail,Conference record,Monitor and Call logs to the defined FTP Server automatically when flash storage is over 40%.Then the history files will be removed out automatically.

(Note: NOT upload in working time).

| Item | Explanation |
|------------------|---|
| Enable Uploading | Enable periodical FTP uploading. |
| Server Address | Set FTP Server address(IP address or Domain). |
| User Name | FTP account name. |
| Password | FTP account password. |
| Directory | Define a directory on the FTP server. |



Note:

- 1) Upload Voicemail, Conference record, Monitor and Call logs to the defined FTP Server automatically when flash storage is over 40%. Then the history files will be removed out automatically.
- 2) NOT upload in working time by default.

6.7 Backup

Backup

Backup all the settings. Click **【Backup】** to display the diagram as below:

Backup

| List of Configuration Backups | | | |
|-------------------------------|------|--------------|---|
| S.No | Name | Date | Options |
| 1 | test | Jun 24, 2011 | Restore Delete Download |

- **Restore** Restore your selected backup file to system.
- **Delete** Delete your selected backup file.
- **Download** Download your selected backup file to your PC. (Note: Please don't change the backup file name.)

Upload Backup File

Click **【Upload Backup File】** to display the diagram as below:

| Upload Backup File |
|---|
| <p>Note: Don't change the backup file name.</p> <p>Please choose file to upload: <input type="text"/> 浏览...</p> <p>Upload</p> |

6.8 Upgrade

- Click **【WEB Upgrade】** to upgrade as below
Choose the file to upload. If you enabled Restore Default Settings, the system will be restored to default after upgrading:

| Upgrade System Package |
|--|
| <p><input checked="" type="radio"/> WEB Upgrade <input type="radio"/> TFTP Upgrade</p> <p>Restore Default Settings: <input type="checkbox"/></p> <p>Please choose file to upload: <input type="text"/> 浏览...</p> <p>Upload</p> |

- Click **【TFTP Upgrade】** to upgrade as below:

Upgrade System Package

☒ WEB Upgrade
☐ TFTP Upgrade

Enter The Package Name:

TFTP Server IP address:

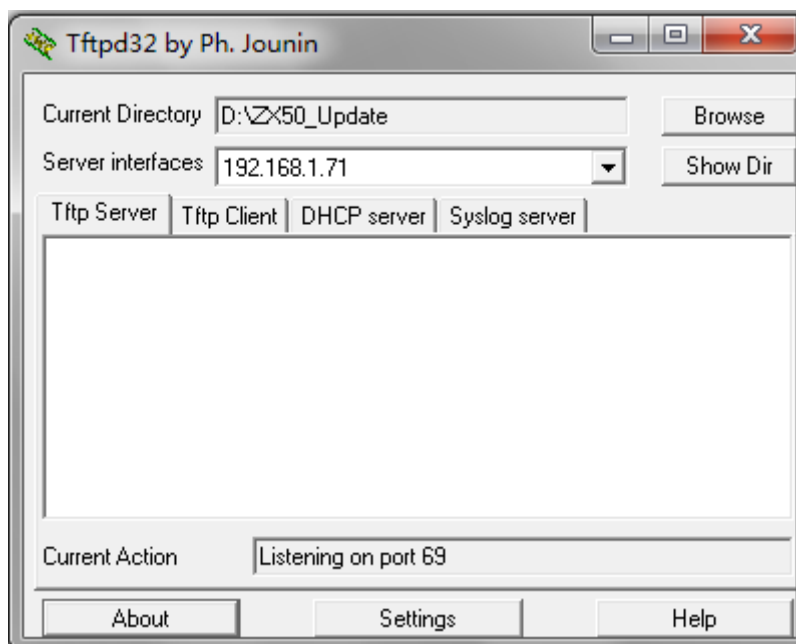
Restore Default Settings: ☐

Update

Extract the downloaded firmware package which includes one TFTP server and one upgrading file.



Run TFTP server, you will see the following interface:



Go into the "update" page, and upload firmware;

Enter the package name uImage-md5

Enter **TFTP Server IP address**, 192.168.1.71

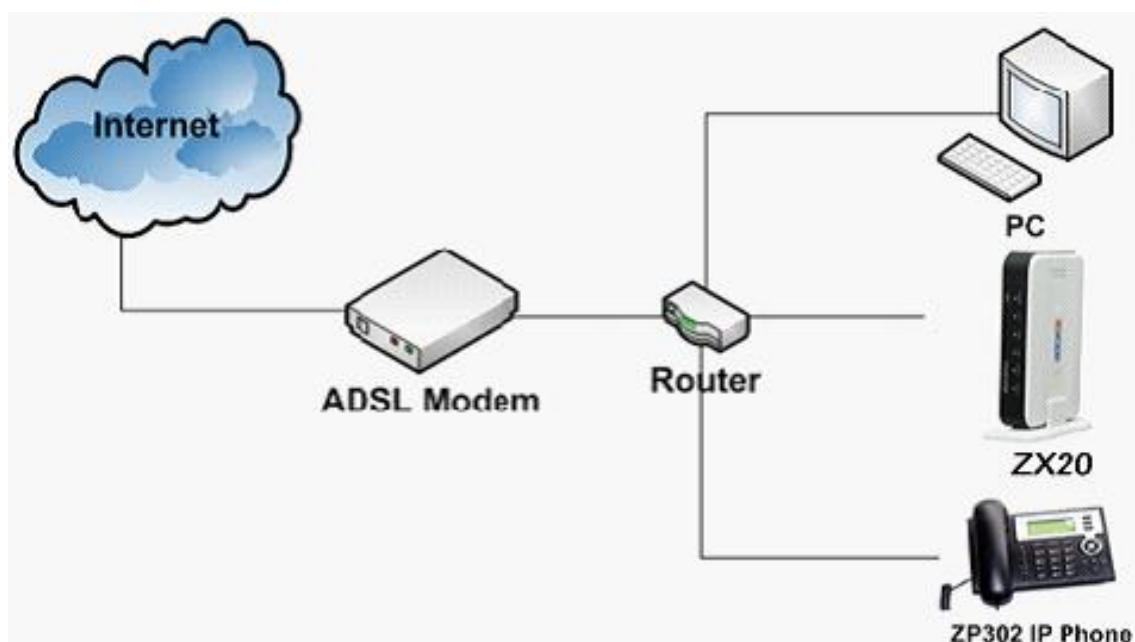
Click **Update** button to finish upgrading system package after entering the TFTP Server IP. Then system will reboot automatically.

Chapter 7 Operating Instruction

This chapter will introduce you how to use ZYCOO IP PBX by example.

7.1 How to connect the ZX20 IP PBX to the Internet

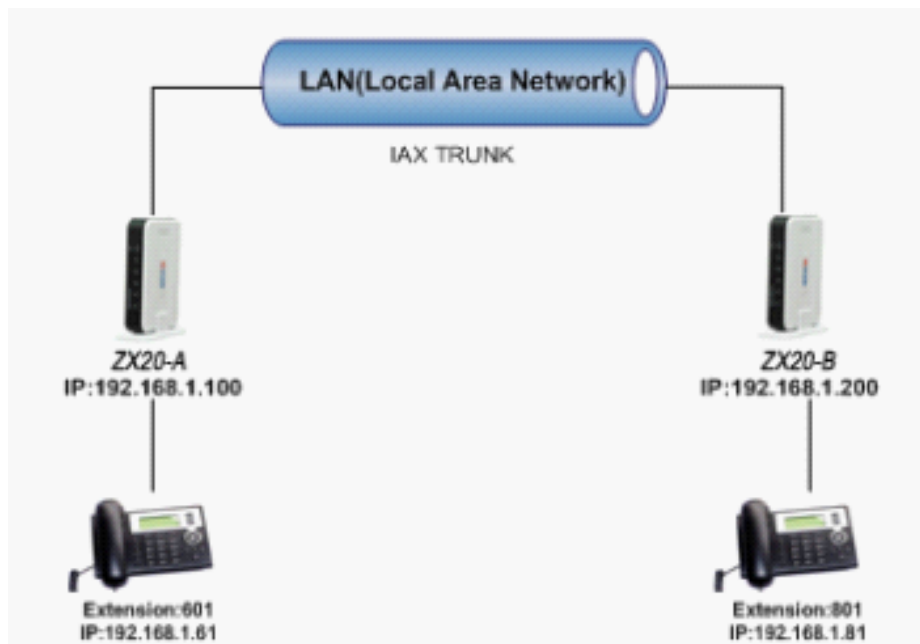
If your office access the public network through router, you can put the IP PBX behind the router. You should connect the WAN port of the IP PBX to the LAN ports of the router, and you can also connect HUB or Switch to the LAN port of the IP PBX to enable some PC or IP Phone to access the public network..



7.2 How to combine two ZX20 IP PBX in the same network

We start combining two IP PBX in the same network and then try to expand to different network.

Below is the structure of how to combine two IP PBX in the same LAN:



Register the ZX20-A as an peer in ZX20-B(via IAX2 trunk),so the extensions in ZX20-A can make calls to ZX20-B's extensions via this "special" trunk.

In above structure:

1. ZP302A registers to ZX20-A as extension 601.
2. ZP302B registers to ZX20-B as extension 801.
3. All the extensions under ZX20-A are in the format 6XX.
4. All the extensions under ZX20-B are in the format 8XX
5. Extensions under ZX20-A can make calls to extension under ZX20-B with format 8XX.
6. Extensions under ZX20-B can make calls to extension underZX20-A with format 6XX.

Step 1: Set up a peer 699 in ZX20-A

In the page Trunks→ Add a Trunk

Add a Trunk X

Provider Type:

☐ Analog Trunk
☐ VoIP Trunk
☒ Peer

Peer Name: ZX20B

Protocol: SIP

Dial Plan: default

Host: dynamic

NAT: ☐

Prefix:

☐ Without Authentication

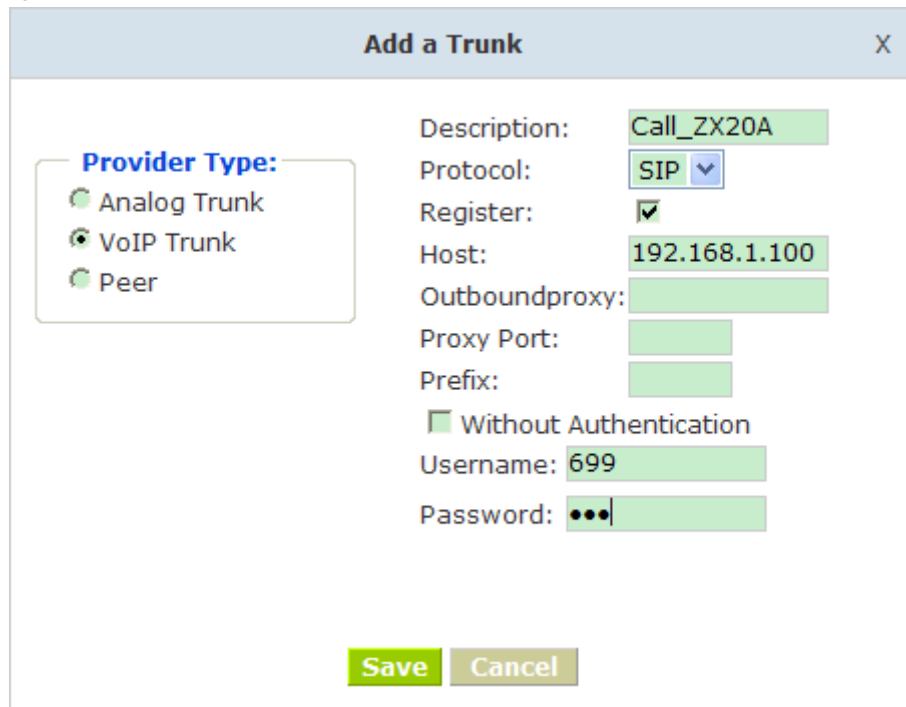
Username: 699

Password: ●●●

Save
Cancel

Peer Name: ZX20B ;
 Peer Username: 699 Account of this Peer
 Password: 699 IAX2 Log on password
 Advance Options: Select IAX protocol

Step 2: Set up an IAX trunk in ZX20-B to connect to ZX20-A via this ZX20B Peer.
 In the page Trunks--> Add a Trunk



Add a Trunk [X]

Provider Type:

- ☐ Analog Trunk
- ☒ VoIP Trunk
- ☐ Peer

Description: Call_ZX20A

Protocol: SIP

Register: ☒

Host: 192.168.1.100

Outboundproxy:

Proxy Port:

Prefix:

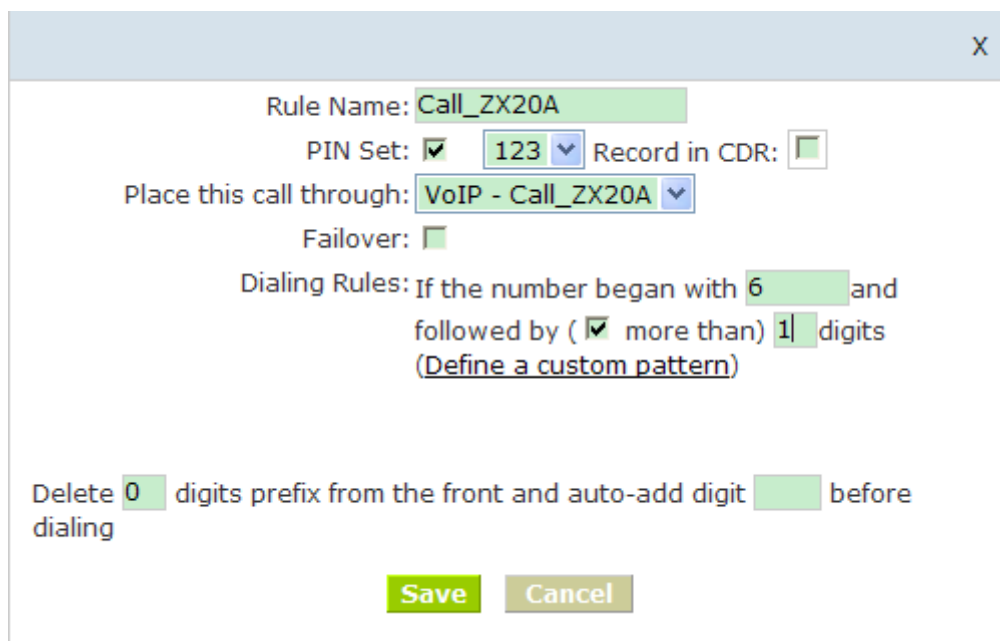
☐ Without Authentication

Username: 699

Password:

Save **Cancel**

Step 3: Set Dial Rule in ZX20-B, all calls starting with 6 will be sent to ZX20-A.
 In the page: Outbound Routes --> Add a Dial Rule



Add a Dial Rule [X]

Rule Name: Call_ZX20A

PIN Set: ☒ 123 Record in CDR: ☐

Place this call through: VoIP - Call_ZX20A

Failover: ☐

Dialing Rules: If the number began with 6 and followed by (more than) 1 digits (Define a custom pattern)

Delete 0 digits prefix from the front and auto-add digit before dialing

Save **Cancel**

Step 4: Set the user 601 and Dial Plan in ZX20-A.

In the page: Extensions → Dial Plan

Activate the change and apply the test:

1. Register an IP phone ZP302B to ZX20-B with 801 extension.
2. Register an IP phone ZP302A to ZX20-A with 601 extension.
3. 801 call 601. And you can see 601 will ring and you can pick up the call.

Above is the way to route ZX20-B's call to ZX20-A,

Accordingly, if you want to call from ZX20-A to ZX20-B, continue as below:

Step 5: Set Dial Rule in ZX20-A all calls starting with 8 will be sent to ZX20-B.

X

Rule Name:

PIN Set: ☒ Record in CDR: ☐

Place this call through:

Failover: ☐

Dialing Rules: If the number began with and followed by (☒ more than) digits
([Define a custom pattern](#))

Delete digits prefix from the front and auto-add digit before dialing

Step 6: Set the user 801 and Dial Plan in ZX20-B

Extension Settings:

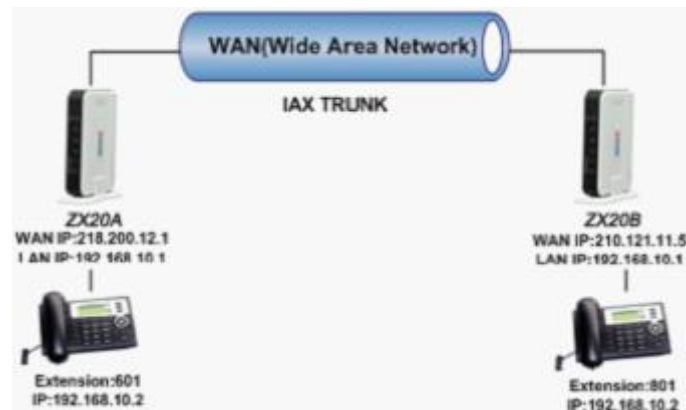
| | |
|---------------|--|
| Extension: | <input type="text" value="801"/> |
| Name: | <input type="text" value="User1"/> |
| Password: | <input type="text" value="801"/> |
| Caller ID: | <input type="text" value="801"/> |
| Outbound CID: | <input type="text" value=""/> |
| VM Password: | <input type="text" value="801"/> |
| E-mail: | <input type="text" value=""/> |
| Analog Phone: | <input type="text" value="None"/> |
| Dial Plan: | <input type="text" value="DialPlan1"/> |

Activate the change and apply the test:

601 call 801, and 801 will ring and you can pick up the call.

7.3 How to combine two IPPBX in different network

The general environment for two ZX20 in different locations is: Both ZX20 IP PBX are in the Internet and using the public IP.



The configuration is same as above guide(7.2 **Combine two ZX20 IP PBX in the same network**) , but use the public IP address as the "HOST" settings, set as below:

In the page Trunks of ZX20-B--> Add a Trunk

Add a Trunk X

Provider Type:

- ☐ Analog Trunk
- ☒ VoIP Trunk
- ☐ Peer

Description:

Protocol:

Register: ☒

Host:

Outboundproxy:

Proxy Port:

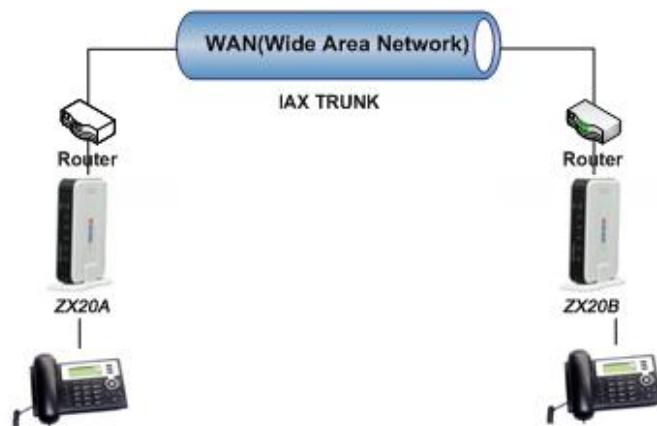
Prefix:

☐ Without Authentication

Username:

Password:

The general environment for two ZX20 IP PBX in different location and one or both two are behind router and using the private IP. So we need to make port forwarding in the router and make ZX20 IP PBX reach to each other.



Step 1: Set port forwarding in the router for ZX20-A

For the ZX20-A is behind the router, you need forward the IAX2 port in your router, so all the packets received on the router WAN port (210.11.25.127:4569) will be forwarded to the ZX20-A (192.168.1.21:4569). Below is the setting page in a linksys router:

Applications & Gaming

Setup Security Applications & Gaming Administration Status

Port Range Forwarding Port Triggering UPNP Forwarding DMZ

UPnP Forwarding

| Application | Ext.Port | TCP | UDP | Int.Port | IP Address | Enabled |
|-------------|----------|----------------------------------|----------------------------------|----------|---------------|-------------------------------------|
| FTP | 21 | <input checked="" type="radio"/> | <input type="radio"/> | 21 | 192.168.1.0 | <input type="checkbox"/> |
| Telnet | 23 | <input checked="" type="radio"/> | <input type="radio"/> | 23 | 192.168.1.0 | <input type="checkbox"/> |
| SMTP | 25 | <input checked="" type="radio"/> | <input type="radio"/> | 25 | 192.168.1.0 | <input type="checkbox"/> |
| DNS | 53 | <input type="radio"/> | <input checked="" type="radio"/> | 53 | 192.168.1.0 | <input type="checkbox"/> |
| TFTP | 69 | <input type="radio"/> | <input checked="" type="radio"/> | 69 | 192.168.1.0 | <input type="checkbox"/> |
| finger | 79 | <input checked="" type="radio"/> | <input type="radio"/> | 79 | 192.168.1.0 | <input type="checkbox"/> |
| HTTP | 80 | <input checked="" type="radio"/> | <input type="radio"/> | 80 | 192.168.1.199 | <input checked="" type="checkbox"/> |
| POP3 | 110 | <input checked="" type="radio"/> | <input type="radio"/> | 110 | 192.168.1.0 | <input type="checkbox"/> |
| NNTP | 119 | <input checked="" type="radio"/> | <input type="radio"/> | 119 | 192.168.1.0 | <input type="checkbox"/> |
| SNMP | 161 | <input type="radio"/> | <input checked="" type="radio"/> | 161 | 192.168.1.0 | <input type="checkbox"/> |
| ssh | 2020 | <input checked="" type="radio"/> | <input type="radio"/> | 22 | 192.168.1.235 | <input checked="" type="checkbox"/> |
| http1 | 8080 | <input checked="" type="radio"/> | <input type="radio"/> | 80 | 192.168.1.29 | <input checked="" type="checkbox"/> |
| http2 | 8090 | <input checked="" type="radio"/> | <input type="radio"/> | 80 | 192.168.1.209 | <input checked="" type="checkbox"/> |
| IAX | 4569 | <input checked="" type="radio"/> | <input type="radio"/> | 4569 | 192.168.1.21 | <input checked="" type="checkbox"/> |
| IAX2 | 4569 | <input type="radio"/> | <input checked="" type="radio"/> | 4569 | 192.168.1.21 | <input checked="" type="checkbox"/> |

UPnP Forwarding

UPnP Forwarding can be used to set up public services on your network. When users from the Internet make certain requests on your network, the Router can forward those requests to computers equipped to handle the requests. If, for example, you set the port number 80 (HTTP) to be forwarded to IP Address 192.168.1.2, then all HTTP requests from outside users will be forwarded to 192.168.1.2. It is recommended that the computer use static IP address.

You may use this function to establish a Web server or FTP server via an IP Gateway. In this format, Windows XP can be used to configure this through UPnP communication. Be sure that you enter a valid IP Address. (You may need to establish a static IP address with your ISP in order to properly run an Internet service. For added security,

[More...](#)

Step 2: Set up the Provider Host in ZX20-B

Set up the service provider and calling rule in ZX20-B to make it register to ZX20-A. This method is almost the same as above, EXCEPT you need to use the 210.11.25.127 as the service provider instead of 192.168.1.21.

Step 3: Set port forwarding in the router for ZX20-B

Use the same method as Step 1 to do port forwarding in router-B for ZX20-B as above.

Setp4: *Combine two ZX20 and make calls*

Accordingly, set the 601 users in ZX20-A and 801 users in ZX20-B, and build the correct dial rules as above, you can make calls between two the ZX20 IP PBX.

Note: You can also apply a DDNS to get one fixed domain for both ZX20 IP PBX and connect to each other rather than using the Port Forwarding in the router.

7.4 How to resolve problems about hearing on one side only

If your IP PBX is behind the Router, you should build an IP Address Map to resolve this problem as below:

【Advance】 ---- 【Options】 ---- 【Global SIP Settings】 --- 【NAT Support】

NAT Support

External IP:
External Host:
External Refresh:
Local Network Address:

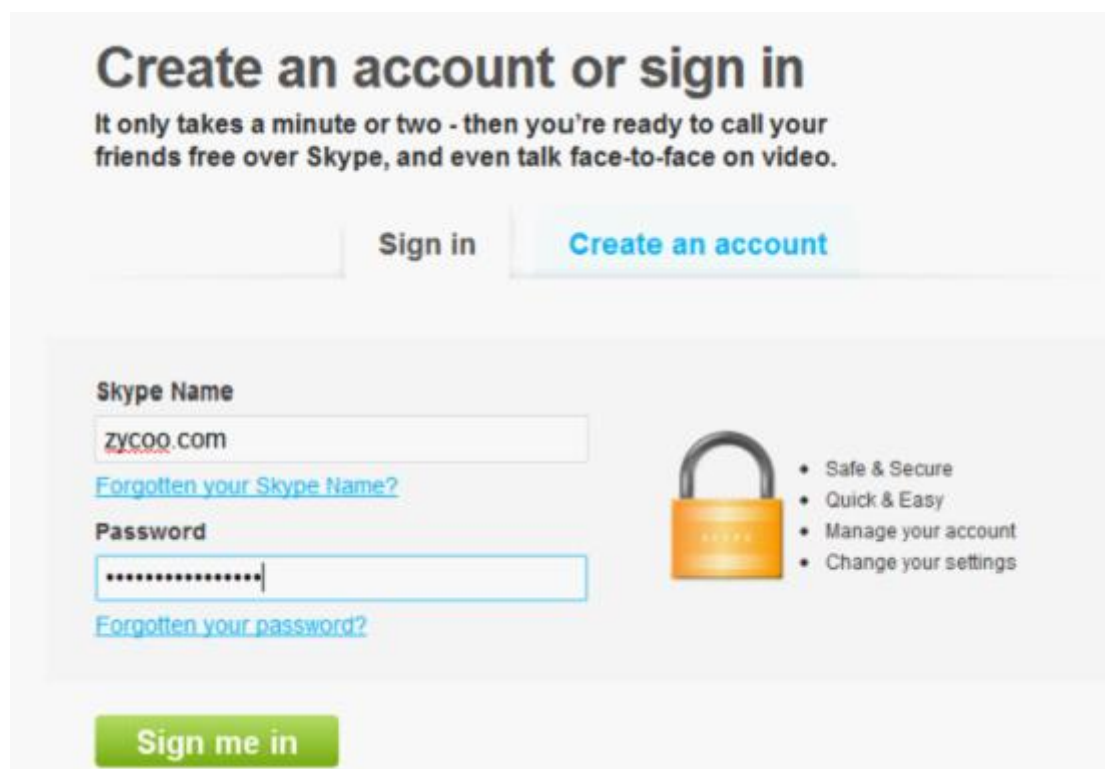
- External IP Replace your external IP address as your public IP or domain
- External Host Replace your external IP address as your public IP or domain
- External Refresh Set time for refresh, default is 10
- Local Network Address Replace your local network address and mask

Chapter8 How to use Skype account in ZX20

Notice: The fee of your business account must be more than €50 when you use the account first time.

1. Sign in with the business account on this page:

https://login.skype.com/account/login-form?intcmp=sign-in&return_url=https://secure.skype.com/account/login



Create an account or sign in
It only takes a minute or two - then you're ready to call your friends free over Skype, and even talk face-to-face on video.

[Sign in](#) [Create an account](#)

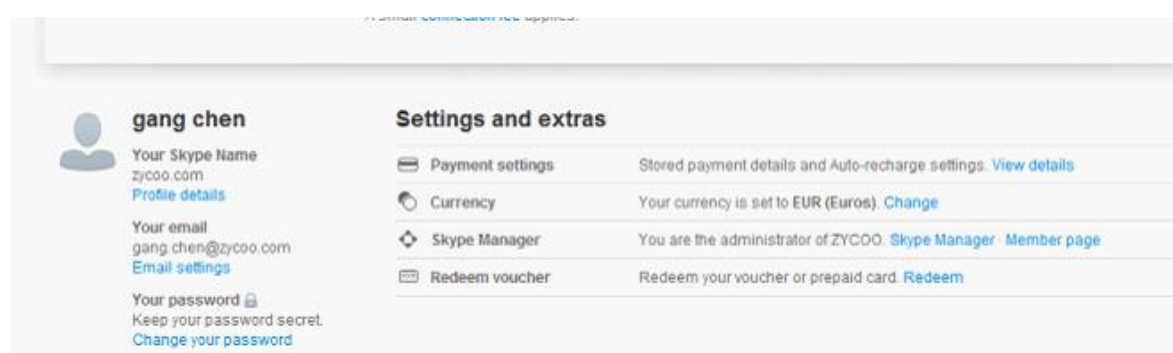
Skype Name
zycoo.com
[Forgotten your Skype Name?](#)

Password
.....
[Forgotten your password?](#)

[Sign me in](#)

- Safe & Secure
- Quick & Easy
- Manage your account
- Change your settings

2. When you have signed in, please click **Skype Manager** at the end of this page.

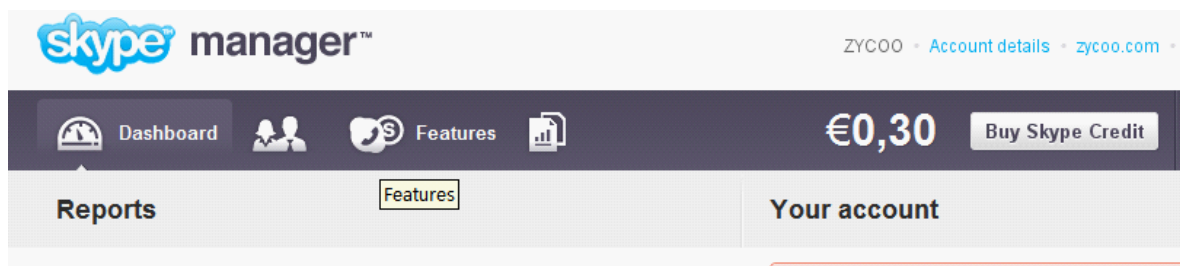


gang chen
Your Skype Name
zycoo.com
[Profile details](#)
Your email
gang.chen@zycoo.com
[Email settings](#)
Your password
Keep your password secret.
[Change your password](#)

Settings and extras

| | |
|------------------|---|
| Payment settings | Stored payment details and Auto-recharge settings. View details |
| Currency | Your currency is set to EUR (Euros). Change |
| Skype Manager | You are the administrator of ZYCOO. Skype Manager Member page |
| Redeem voucher | Redeem your voucher or prepaid card. Redeem |

3. Please click the button **Features**.



4. Please click the **Skype connect**



5. Create a SIP profile

Create a SIP profile

1 Choose name
2 Set up subscription
3 Authentication

Creating a SIP profile is as easy as three steps. Simply choose a name for your profile, purchase a channel subscription, and get your authentication details.

Choose a profile name

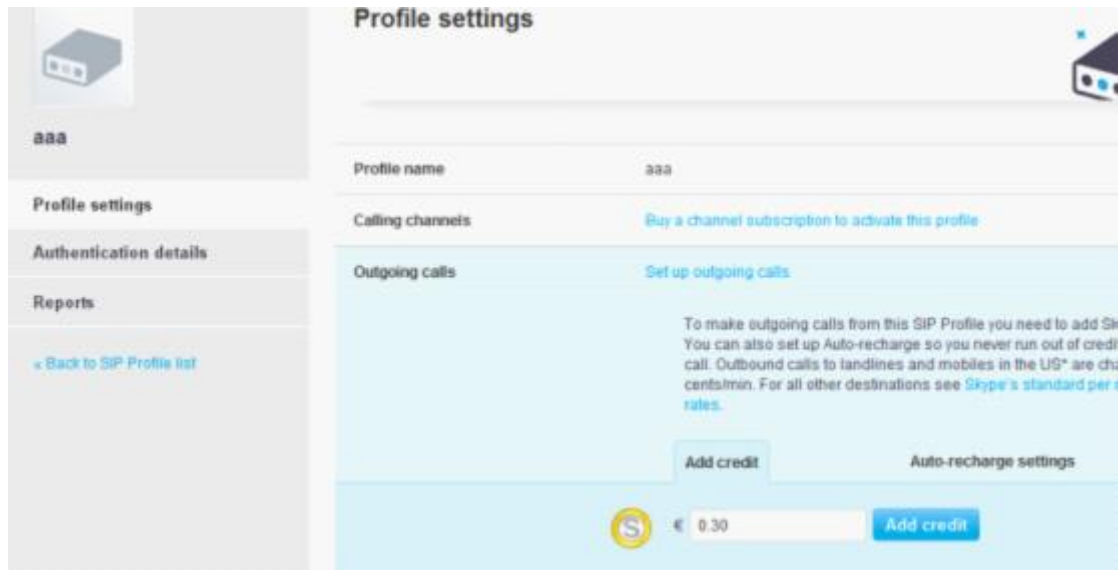
✓

For example, "New York office". You can edit this name later.

Next
Cancel

Then you can create one sip account, you need pay for € 4.95 for one channel as monthly rent and you need input the register information to our VoIP trunk blank, then you can register to skype server. And you need assign money for outgoing calls, then you can call out.

Note: Skype Channel belongs to VoIP channel, so any calls from Skype will be directed to the same destination of VoIP.



Then you can see the sip account information by clicking **Authentications details**.



<Finish, Thank You!>